25 June 2012 │ 22 pages

India Mid-Cap Construction

Not a Pretty Picture – Sell IVRC, Buy NCC

- **Headwinds will remain; Downgrade IVRCL to Sell, Upgrade NCC to Buy –** Mid cap construction stocks had a poor run in FY12. Revenue growth continued the downward spiral, EBITDA margins declined by 118-204bps, debt shot up and interest costs depressed PAT margins to the lowest in a decade. We believe headwinds will continue in terms of slower decision making, high rates and execution delays and look for better macro, asset sales/deleveraging to get constructive. We downgrade IVRCL to Sell due to large funding requirements and upgrade NCC to Buy as we believe the sharp stock price correction (~47% in the last 1 year, underperformance of 41% vs Sensex, 25% vs IVRC) factors in most of the risks.

- **While there are some signs of consolidation… –** Both companies are focusing on balance sheet improvement – by improving debtor collection etc. Fund-raising via asset stake sales seems to be getting increased attention. Order inflows grew sharply in FY12 – should drive revenue growth over the next 2-3 years.

- **...things are unlikely to improve meaningfully for some time –** 1) Under-performing BOT subs continue to be a drag on parent cash flows. 2) Tighter liquidity, underperformance by operational BOT assets, high / un-calibrated expectations of the seller, too many such assets available in the market could lead to a delay in asset sales. 3) Increasing requirement for funds – we believe that their balance sheets will remain stretched as they take on more BOT projects.

- **IVRCL: Cutting est, TP, downgrade to Sell –** We cut our estimates by 36%-48% for FY13/14E on lower margins and increased interest cost. We cut our TP to Rs45 (from Rs48) to reflect 1) lower earnings estimates, 2) increase in our target multiple to 7x Sept13E from 6x Dec 12E on an improved order-book. We believe that current and future funding requirements will be an overhang on the stock.

- **NCC: Cutting est, Upgrade to Buy –** We cut our estimates by 41%-42% for FY13E/14E driven by a cut in our revenue and margin assumptions. We increase our target multiple for the construction business to 7x Sept13E from 6x Dec12E to reflect an improvement in the order-book. We cut our values of NCC's international and real estate business due to the lower visibility. While we still seek clarity in FSA, PPA for NCC power to get constructive on the venture, we believe the stock price factors in some of these risks and provides reasonable upside from current levels.

Deepal Delivala
+91-22-6631-9857
deepal.delivala@citi.com

Venkatesh Balasubramaniam
+91-22-6631-9864
venkatesh.balasubramaniam@citi.com

Atul Tiwari, CFA
+91-22-6631-9866
atul.tiwari@citi.com

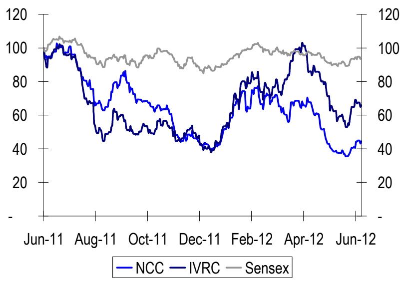
Ticker	Company	Rating	Target Price	Current Year Earnings Estimates	Next Year Earnings Estimates
IVRC.BO	**IVRCL Infra & Projects**	**3**	**Rs45.00**	**Rs3.02**	**Rs4.23**
	previously	1	Rs48.00	Rs5.76	Rs6.56
NCCL.BO	**NCC**	**1**	**Rs53.00**	**Rs3.84**	**Rs4.44**
	previously	3	-	Rs6.47	Rs7.64

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Not a pretty picture

The mid-cap construction stocks had a poor run in FY12 – revenue growth continued the downward spiral, EBITDA margins declined by 118-204bps, debt shot up (for most part of the year at least) and consequent interest cost depressed PAT margins to being the lowest in the past decade. This combined with a weak macro environment, slower policy/decision making led to an erosion in shareholder value resulting in sharp stock price declines in the last 1 year. IVRCL and NCC fell 23% and 47% respectively and underperformed Sensex by 16%, 41% in the last 1 year.

Figure 1. IVRC, NCC relative to Sensex in last 1 yr



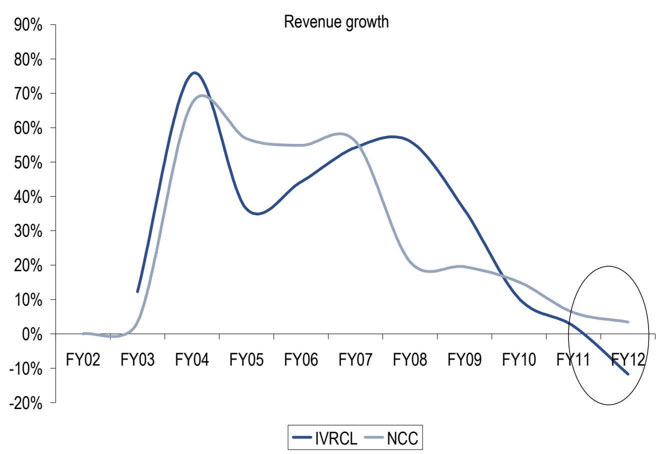
Source: DataCentral. Citi Investment Research and Analysis

Figure 2. NCC, IVRC, Sensex – Price Performance

	1 Week	1 Month	3 Months	6 Months	1 Yr
NCC	11.6%	33.1%	-17.4%	16.9%	-47.5%
Sensex	1.4%	5.4%	-1.5%	8.6%	-6.3%
IVRC	10.1%	23.0%	-10.1%	81.9%	-22.5%
NCC vs Sensex	10.2%	27.7%	-15.9%	8.3%	-41.2%
IVRC vs Sensex	8.7%	17.6%	-8.6%	73.3%	-16.3%
NCC vs. IVRC	1.5%	10.1%	-7.2%	-65.0%	-25.0%

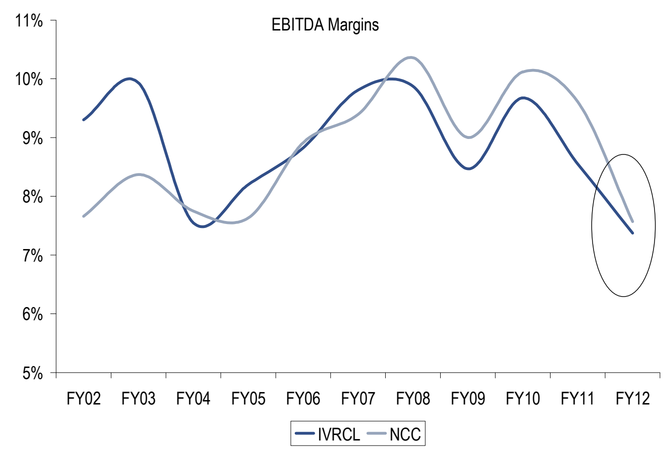
Source: DataCentral. Citi Investment Research and Analysis

Figure 3. IVRCL, NCC Revenue Growth



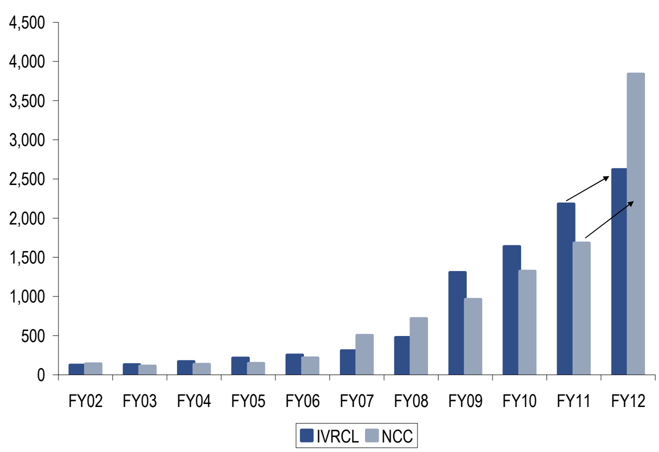
Source: Company, Citi Investment Research and Analysis

Figure 4. IVRCL, NCC EBITDA Margins



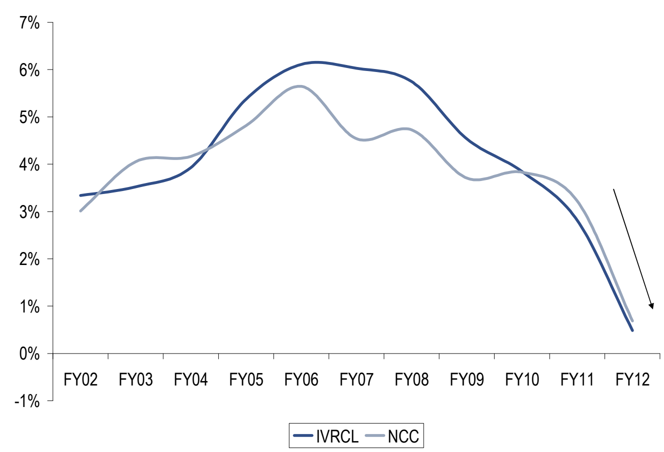
Source: Company, Citi Investment Research and Analysis

Figure 5. IVRCL, NCC Interest Cost



Source: Company, Citi Investment Research and Analysis

Figure 6. IVRCL, NCC – Net PAT margins



Source: Company, Citi Investment Research and Analysis

Will things improve? Not for some time…

While there are some signs of consolidation –

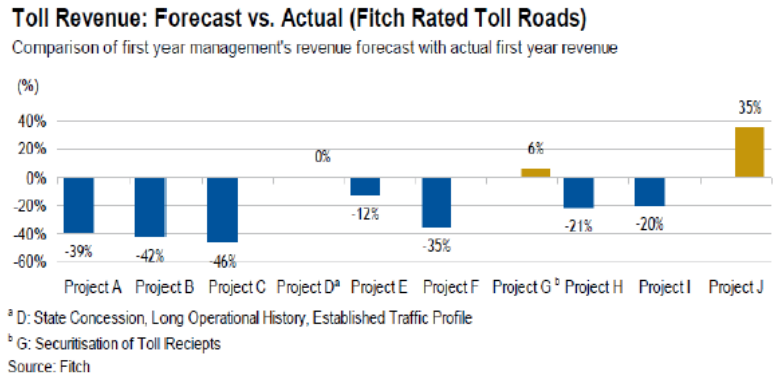
- Both are focusing on balance sheet improvement – by focusing on improving debtor collection etc
- Fund-raising via asset stake sales seems to be getting increased focus from both managements.
- Order inflows grew sharply in FY12 – should drive revenue growth over the next 2-3 years

The overall picture is still bleak

Our discussions with the management of both companies suggest that overall scenario still looks fairly weak.

- **Under-performing BOT subs continue to be a drag on parent cash-flows –** Both IVRCL and NCC have a decent sized and a growing BOT asset portfolio. Some of the older projects that have got operational (after a lot of delays) are underperforming as far as traffic growth/ cash flow generation is concerned.
- **Headwinds continue – unlikely to abate in the short term.** Most subsidiaries are still a while away from stabilizing and generating free cash flows. We see multiple constraints and headwinds (rates, delay in clearances, coal linkage, and high premium due to competition) which could delay/impact profitability of these subsidiary projects.
- **Asset sales – Need of the hour but how likely?** While the managements of both companies have stated publicly their intent to sell stakes in BOT assets, we are wary of getting too excited by this due to the following reasons:
  - **Tougher liquidity –** We believe there is little appetite for acquiring assets in the current environment when capital is so scarce and expensive.
  - **High and un-calibrated expectations of the seller –** Our discussions with various PE players and infrastructure companies suggest that while there is a tough environment and companies are looking to raise funds via stake sales, the expectations of the seller with respect to valuations are still too high and not calibrated with the actual operational and financial performance of the BOT assets.
  - **Poor performance of road projects –** Some of the operational projects of IVRCL and NCC are under-performing as far as actual traffic vs management's expectations go. This coupled with delay in commissioning, attendant increase in project costs, interest rate hikes have led to an erosion of the IRRs of these projects.
  - IVRCL - e.g. Fitch ratings published a credit update note on 24th November, 2011 which stated that traffic on Salem and Kumarapalyam has "significantly underperformed management's original projections since tolling commenced in July 2010".
  - NCC - On Western UP project the company has seen ~16-17% (Rs2mn per day vs. Rs2.4mn per day earlier) drop in traffic due to a SC ban on mining in the area which has impacted the movement of heavy traffic in the area. The daily toll collection at Pondicherry-Tindivanam project is Rs0.35mn per day vs. their target of Rs0.8mn/ day. On Bangalore elevated tollway project, the daily toll collection is Rs2.2mn/day vs a breakeven of Rs2.5mn/day.

Figure 7. Toll revenues on Fitch rated toll roads (project details, companies not known)



Source: Fitch

- **Lots of sellers –** Our discussions with industry experts suggest a lot of companies are offering partial/full stake sales in the road/other BOT assets which leaves a lot of room to bring down acquisition price. Media reports suggest GMR, Lanco Infra are also looking at stake sales in their road assets to raise funds.

Increasing requirement for funds

We also believe that since these companies are in a growth phase – their balance sheets will remain stretched as they take on more BOT projects. IVRCL has won 4 new BOT road projects in the last 6 months increasing the funding requirement. NCC is developing a power project in which its equity requirement is Rs9bn.

Downgrade IVRCL to Sell

- **Cutting estimates sharply -** We cut our estimates for IVRCL by 36%-48% over the next 2 years to reflect a cut in our EBITDA margin and an increase in our interest cost estimates.
- **Cut target price to Rs45 -** We cut our target price to Rs45 from Rs48 on the back of 1) the cut in our earnings estimates, 2) an increase in our target multiple to 7x Sept13E from 6x Dec 12E to reflect an improvement in the order-book, 3) a change in the values of PUDL and HDO to reflect current market values.
- **Downgrade to Sell -** We downgrade IVRCL to a Sell as we believe that current and future funding requirements will be an overhang on the stock. We look for meaningful development on asset sales, pick up in execution and an improvement in financial performance to get more constructive on the stock.

Upgrade NCC to BUY

- **Cutting estimates by 41%/42% for FY13E/14E -** We cut our earnings by 41%-42% for FY13E/14E driven by a cut in our revenue and margin assumptions.
- **Upgrade to Buy, TP unchanged –** We increase our target multiple for the core construction business to 7x Sept13E from 6x Dec 12E to reflect an improvement in the order-book. We cut our values of NCC's international business and real estate business due to the lower revenue visibility. While we are still concerned about NCC power project and its prospects in terms of FSA and PPA – we believe the current stock price factors in some of these risks and provides reasonable upside from current levels.

Company Focus

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

Sell	**3**
from Buy	
Price (25 Jun 12)	Rs52.00
Target price	Rs45.00
from Rs48.00	
Expected share price return	-13.5%
Expected dividend yield	2.7%
Expected total return	**-10.8%**
Market Cap	Rs13,885M
	US$243M

Price Performance
(RIC: IVRC.BO, BB: IVRC IN)

IVRCL Infra & Projects (IVRC.BO)

Looming Funding Needs; Downgrade to Sell

- **Downgrade to Sell** – We downgrade IVRCL to Sell (from Buy) as we believe that current and future funding requirements will be an overhang on the stock. We look for meaningful development on asset sales, pick up in execution and an improvement in financial performance to get more constructive on the stock.

- **Poor performance in FY12** – IVRCL's revenues declined by 12% in FY12, EBITDA margins fell 118bps, PAT declined by 85% YoY. While the order book grew, execution remained lack-lustre leading to a drop in revenues.

- **Equity requirement of ~Rs18bn over the next 2-3 years** – IVRCL management said that they would need to invest ~Rs18bn in the current/ under-implementation / new BOT road projects.

- **Stake sale in assets key to raising funds** – IVRCL is looking to sell stakes in road and real estate projects to raise funds required to be infused in the under-implementation road projects. The company is looking to sell stakes in Sion-Panvel, Chengapalli, Salem and Kumarapalyam road projects. The company is also looking to sell a stake in a real estate project in Noida.

- **Guidance of Rs70bn in standalone revenues in FY13E** – IVRCL management mentioned that it can do revenues of Rs70bn in FY13E based on the current order-backlog. (Execution of 26-28% of opening order book vs. earlier rate of 40-45%.) In our discussions, the company mentioned that the EBITDA margins on new orders ranged from 8-11% - leading to potential margins of 9-9.5% for the next 2-3 years

- **Cutting estimates sharply** – We cut our estimates by 36%-48% over the next 2 years to reflect a cut in EBITDA margin and higher interest cost estimates.

- **TP cut to Rs45** – We cut our TP price to Rs45 (from Rs48) on the back of 1) our lower earnings estimates, 2) increase in our target multiple to 7x Sept13E from 6x Dec 12E to reflect an improved order-book. Our target multiple is at a discount to historical average PE, which we believe is appropriate given changes in the operating environment, the demand outlook and liquidity concerns, 3) a change in the values of PUDL and HDO to reflect current market values. We maintain our holding company discount for HDO and PUDL at 30% as earlier.

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2011A	1,579	5.91	-25.2	8.8	0.7	8.2	1.9
2012A	241	0.90	-84.7	57.7	0.7	1.2	2.3
2013E	807	3.02	235.0	17.2	0.7	4.0	2.7
2014E	1,128	4.23	39.9	12.3	0.7	5.4	4.6
2015E	1,403	5.26	24.4	9.9	0.6	6.6	4.6

Source: Powered by dataCentral

IVRC.BO: Fiscal year end 31-Mar — Price: Rs52.00; TP: Rs45.00; Market Cap: Rs13,885m; Recomm: Sell

Profit & Loss (Rsm)	2011	2012	2013E	2014E	2015E
Sales revenue	56,174	49,595	65,800	72,859	78,968
Cost of sales	-49,504	-44,314	-58,160	-64,141	-69,342
Gross profit	6,670	5,281	7,640	8,717	9,627
Gross Margin (%)	11.9	10.6	11.6	12.0	12.2
EBITDA	**4,805**	**3,657**	**5,255**	**6,038**	**6,702**
EBITDA Margin (%)	8.6	7.4	8.0	8.3	8.5
Depreciation	-758	-975	-1,063	-1,138	-1,213
Amortisation	0	0	0	0	0
EBIT	**4,047**	**2,682**	**4,193**	**4,900**	**5,489**
EBIT Margin (%)	7.2	5.4	6.4	6.7	7.0
Net interest	-2,182	-2,620	-3,221	-3,440	-3,613
Associates	0	0	0	0	0
Non-op/Except	460	298	250	250	250
Pre-tax profit	**2,326**	**360**	**1,222**	**1,710**	**2,126**
Tax	-747	-119	-416	-581	-723
Extraord./Min.Int./Pref.div.	0	0	0	0	0
Reported net profit	**1,579**	**241**	**807**	**1,128**	**1,403**
Net Margin (%)	2.8	0.5	1.2	1.5	1.8
Core NPAT	1,579	241	807	1,128	1,403

Per share data	2011	2012	2013E	2014E	2015E
Reported EPS (Rs)	5.91	0.90	3.02	4.23	5.26
Core EPS (Rs)	5.91	0.90	3.02	4.23	5.26
DPS (Rs)	1.00	1.20	1.40	2.40	2.40
CFPS (Rs)	-10.01	-16.75	-8.68	0.67	0.54
FCFPS (Rs)	-17.19	-20.50	-11.50	-2.15	-2.28
BVPS (Rs)	74.43	75.46	76.84	78.26	80.70
Wtd avg ord shares (m)	267	267	267	267	267
Wtd avg diluted shares (m)	267	267	267	267	267

Growth rates	2011	2012	2013E	2014E	2015E
Sales revenue (%)	2.3	-11.7	32.7	10.7	8.4
EBIT (%)	-15.1	-33.7	56.3	16.9	12.0
Core NPAT (%)	-25.2	-84.7	235.0	39.9	24.4
Core EPS (%)	-25.2	-84.7	235.0	39.9	24.4

Balance Sheet (Rsm)	2011	2012	2013E	2014E	2015E
Cash & cash equiv.	1,432	937	443	1,120	762
Accounts receivables	19,298	17,800	23,075	24,952	27,044
Inventory	2,732	3,214	3,092	3,393	3,656
Net fixed & other tangibles	7,178	7,203	6,891	6,505	6,044
Goodwill & intangibles	0	0	0	0	0
Financial & other assets	37,409	41,364	46,667	49,490	51,934
Total assets	**68,048**	**70,518**	**80,168**	**85,461**	**89,441**
Accounts payable	18,544	15,966	21,479	23,698	25,623
Short-term debt	0	0	0	0	0
Long-term debt	20,958	25,904	28,917	30,917	31,917
Provisions & other liab	8,672	8,501	9,256	9,951	10,353
Total liabilities	**48,175**	**50,370**	**59,652**	**64,565**	**67,893**
Shareholders' equity	19,874	20,147	20,517	20,895	21,549
Minority interests	0	0	0	0	0
Total equity	**19,874**	**20,147**	**20,517**	**20,895**	**21,549**
Net debt	**19,527**	**24,966**	**28,474**	**29,797**	**31,154**
Net debt to equity (%)	98.3	123.9	138.8	142.6	144.6

Valuation ratios	2011	2012	2013E	2014E	2015E
PE (x)	8.8	57.7	17.2	12.3	9.9
PB (x)	0.7	0.7	0.7	0.7	0.6
EV/EBITDA (x)	5.2	8.2	6.6	6.2	5.8
FCF yield (%)	-33.1	-39.4	-22.1	-4.1	-4.4
Dividend yield (%)	1.9	2.3	2.7	4.6	4.6
Payout ratio (%)	17	133	46	57	46
ROE (%)	8.2	1.2	4.0	5.4	6.6

Cashflow (Rsm)	2011	2012	2013E	2014E	2015E
EBITDA	4,805	3,657	5,255	6,038	6,702
Working capital	-4,970	-5,656	-4,188	-2,088	-2,472
Other	-2,507	-2,474	-3,386	-3,772	-4,086
Operating cashflow	**-2,671**	**-4,473**	**-2,319**	**178**	**144**
Capex	-1,919	-1,000	-751	-752	-752
Net acq/disposals	0	0	0	0	0
Other	-209	0	0	0	0
Investing cashflow	**-2,128**	**-1,000**	**-751**	**-752**	**-752**
Dividends paid	-312	-375	-437	-750	-750
Financing cashflow	**4,587**	**4,978**	**2,576**	**1,250**	**250**
Net change in cash	**-212**	**-494**	**-494**	**676**	**-357**
Free cashflow to s/holders	**-4,590**	**-5,473**	**-3,070**	**-574**	**-608**

For further data queries on Citi's full coverage universe please contact CIRA Data Services Asia Pacific at CIRADataServicesAsiaPacific@citi.com or +852-2501-2791
For definitions of the items in this table, please click here.

Powered by: dataCentral

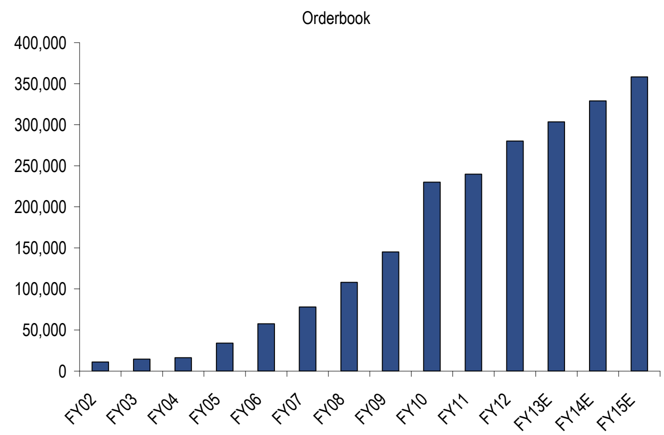
Robust order inflows in FY12

IVRCL received order-inflows of Rs105bn in FY12. The company received 2 BOT road projects in FY12 (Rai Bilaspur, Rai Malakpur road project). In Q1FY13, the company has won 2 more BOT road projects (Patiala-Bhatinda, Gundugolunu-Rajamundhry). The EPC order wins are split across different sectors – with buildings and water segments forming a larger share.

But execution remains lack-lustre

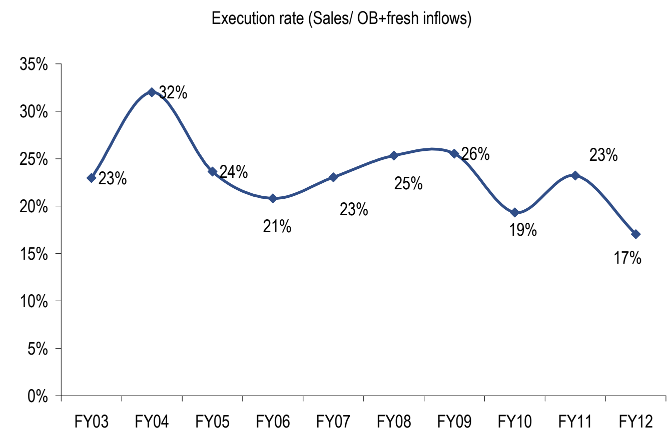
IVRCL's execution rate has been falling over the last 2 years, due to multiple reasons like sub-contractor facing liquidity constraints, clients going slow on execution etc. While order inflows should drive revenue growth over the next 3 years, we believe that this will be dependant on the IVRCL's ability to ramp up execution on the projects and achieving financial closure of the new road projects.

Figure 1. IVRCL Orderbook (Rs mn)



Source: Company, Citi Investment Research and Analysis

Figure 2. IVRCL Execution Rate (Sales/ OB+inflows)



Source: Company, Citi Investment Research and Analysis

Equity requirement of ~Rs18bn over the next 2-3 years

IVRCL management said that they would need to invest Rs18bn in the current and under-implementation BOT road projects. The company may choose to raise CCD's to reduce the overall funding requirement from IVRCL/ IVR Assets.

Stake sale in assets key to raising funds

IVRCL is looking to sell stakes in road and real estate projects to raise funds required to be infused in the under-implementation road projects. The company is looking to sell stakes in Sion-Panvel, Chengapalli, Salem and Kumarapalyam road projects. The company is also looking to sell some real estate project in Noida.

Guidance of Rs70bn in standalone revenues in FY13E

IVRCL management mentioned that it can do revenues of Rs70bn in FY13E based on the current order-backlog of the company. (Execution of 26-28% of opening order book vs. earlier rate of 40-45%.) In our discussions, the company mentioned that the EBITDA margins on new orders ranged from 8-11% - leading to potential margins of 9-9.5% for the next 2-3 years.

The management is targeting inflows of Rs120-150bn and is looking to bid for orders in the building, transportation and railway orders. They are also looking to bid for DFC orders.

Cutting Estimates and Target Price

We cut our estimates for IVRCL sharply – by 36%-48% over the next 2 years to reflect a cut in our EBITDA margin and an increase in our interest cost estimates.

Figure 3. IVRC Estimate Changes

	FY13E	FY14E
Sales		
Old	61,293	66,269
New	65,800	72,859
Change %	7%	10%
EBITDA Margins		
Old	9.0%	9.0%
New	8.0%	8.3%
Change %	(101.30)	(71.30)
Interest Cost		
Old	2,441	2,493
New	3,221	3,440
Change %	32%	38%
EPS		
Old	5.76	6.56
New	3.02	4.23
Change %	-48%	-36%

Source: Citi Investment Research and Analysis

Cut target price to Rs45, Downgrade to Sell

We are cutting our target price to Rs45 from Rs48 earlier on the back of

- the cuts in our earnings estimates
- an increase in our target multiple to 7x Sept13E from 6x Dec 12E to reflect an improvement in the order-book. Our target multiple is at a discount to historical average PE, which we believe is appropriate because of the change in the operating environment, the demand outlook and liquidity concerns.
- A change in the value of PUDL and HDO to reflect current market value. We maintain our holding company discounts for HDO and PUDL at 30% as earlier.

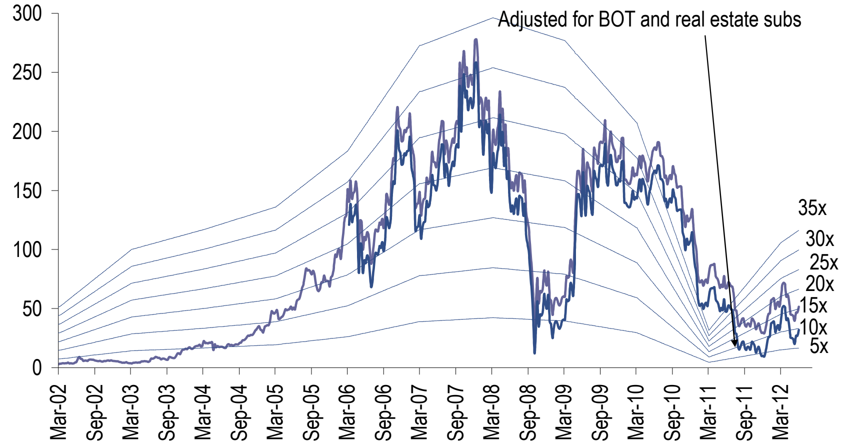
Figure 4. IVRC SOTP valuation

Particulars	New Methodology	Value	Old Methodology	Value
IVRCL Core Construction Business	PE of 7x Sept 13E	25	PE of 6x Dec 12E	33
HDO	Current mkt cap, 30% hold co discount	4	Current mkt cap, 30% hold co discount	3
IVR assets and Holdings	Current mkt cap, 30% hold co discount	16	Current mkt cap, 30% hold co discount	12
Total		45		**48**

Source: Citi Investment Research and Analysis

We downgrade IVRCL to a Sell from a Buy earlier as we believe that the current and future funding requirements will be an overhang on the stock. We look for meaningful development on asset sales, pick up in execution and an improvement in financial performance to get more constructive on the stock.

Figure 5. IVRCL PE Charts



Source: Company, Citi Investment Research and Analysis

IVRCL Infra & Projects

Company description

IVRCL is an established construction company in India with strong pre-qualifications and skill sets in the water supply sector. The company has diversified its revenue base by increasing its presence in roads, buildings, power T&D, real estate and solid liquid separation.

Investment strategy

We assign a Sell rating to IVRCL shares with a target price of Rs45. IVRCL's execution rate has been falling over the last 2 years, due to multiple reasons such as sub-contractor facing liquidity constraints, clients going slow on execution etc. We believe that current and future funding requirements will be an overhang on the stock. We look for meaningful development on asset sales, pick-up in execution and an improvement in financial performance to get more constructive on the stock.

Valuation

We value IVRCL shares at Rs45 based on a sum-of-the-parts (SOTP) methodology given the company's broad business profile. We value the core construction business at Rs25/share based on 7x Sept-13E, a discount to our target P/E multiple for Larsen and Toubro, justified in our view given the difference in scale and skill sets. We value the HDO stake at Rs4/share and the IVR Prime Urban stake at Rs16/share based on current market capitalization and by applying a 30% holding company discount.

Risks

Key upside risks that could mean the shares trading above our target price include: 1) Availability of funding with AP government, 2) Faster execution of projects, 3) Better-than-expected order inflows, and 4) Higher-than-expected margins.

Company Focus

- Company Update
- Rating Change
- Estimate Change

Buy	**1**
from Sell	
Price (25 Jun 12)	Rs39.90
Target price	Rs53.00
Expected share price return	32.8%
Expected dividend yield	3.8%
Expected total return	**36.6%**
Market Cap	Rs10,238M
	US$179M

Price Performance
(RIC: NCCL.BO, BB: NJCC IN)

NCC (NCCL.BO)

Risks Look Factored In; Upgrade to Buy

- **Upgrade to Buy, TP unchanged –** We increase our target multiple for the construction business to 7x Sept13E from 6x Dec 12E to reflect an improvement in order-book. We cut our values of NCC's international and real estate business due to the lower revenue visibility. We no longer reduce the value of investments in the Dubai and Sompet projects as we believe that the current stock price has factored the reduction in value caused by those investment decisions. While we are still concerned about NCC power project and its prospects in terms of FSA and PPA – we believe the current stock price (down ~47% in the last 1 year) factors in most risks and provides reasonable upside from current levels.

- **Update on NCC power project –** NCC Power Project has achieved financial closure. The total project cost is Rs70bn, funded via debt of Rs53bn and balance via equity. NCC has a 55% stake and has invested Rs3.5bn of the total ~Rs9.3bn to be invested by them. NCC received the EPC order of Rs51.8bn and has placed the order for the BTG equipment with Harbin.

- **Need visibility on FSA, PPA to get constructive on the venture –** The project has received linkage up to 70% from Coal India. They plan to import the balance 30% from Indonesia. According to *Business Standard*, Coal India has made a presentation to Ministry of Power/Coal that it can assure 60-65% of linkage in the 1st year, 50-55% in the 2nd year, 58% in 3rd year and 80% in the 4th year. Under this scenario we believe that even if Coal India signs the FSA, NCC might have to increase dependence on imported coal – further increasing cost of generation. **Yet to sign PPAs –** NCC Power has been shortlisted to supply 500MW of power to AP at Rs3.7/unit, the company expects to sign the PPA soon. The company is looking to participate in case I bids in Karnataka and Tamil Nadu.

- **Update on BOT projects –** In the operational BOT road assets, NCC is seeing traffic trending below management expectations/ estimates. On Western UP project the company has seen ~16-17% drop in traffic due to a SC ban on mining in the area. The daily toll collection at Pondicherry- Tindivanam project is Rs0.35mn per day vs. their target of Rs0.8mn/ day. On Bangalore-Elevated tollway project, the daily toll collection is Rs2.2mn/day vs a breakeven of Rs2.5mn/day. The Himachal Sorang project has been delayed due to hydrology related issues - the company now expects commissioning by December 2012.

- **Cutting estimates by 41%/42% for FY13E/14E –** We cut our earnings by 41%-42% for FY13E/14E driven by a cut in our revenue and margin assumptions.

Statistical Abstract

FYE 31 Mar	Net Profit (RsM)	EPS (Rs)	P/E (x)	D. Yld (%)
2010A	1,830	7.13	5.6	2.8
2011A	1,635	6.36	6.3	3.0
2012A	360	1.40	28.5	3.3
2013E	987	3.84	10.4	3.8
2014E	1,139	4.44	9.0	6.3
2015E	1,330	5.18	7.7	6.3

Source: Powered by dataCentral

NCCL.BO: Fiscal year end 31-Mar — Price: Rs39.90; TP: Rs53.00; Market Cap: Rs10,238m; Recomm: Buy

Profit & Loss (Rsm)	2011	2012	2013E	2014E	2015E
Sales revenue	50,737	52,485	57,871	67,738	74,366
Cost of sales	-41,662	-45,070	-49,247	-57,368	-62,819
Gross profit	9,075	7,415	8,623	10,370	11,547
Gross Margin (%)	17.9	14.1	14.9	15.3	15.5
EBITDA	**4,876**	**3,973**	**4,688**	**5,622**	**6,321**
EBITDA Margin (%)	9.6	7.6	8.1	8.3	8.5
Depreciation	-685	-830	-925	-1,010	-1,095
Amortisation	0	0	0	0	0
EBIT	**4,191**	**3,143**	**3,762**	**4,612**	**5,226**
EBIT Margin (%)	8.3	6.0	6.5	6.8	7.0
Net interest	-1,682	-3,840	-2,789	-3,212	-3,540
Associates	0	0	0	0	0
Non-op/Except	146	1,226	500	300	300
Pre-tax profit	**2,656**	**529**	**1,473**	**1,700**	**1,985**
Tax	-1,021	-169	-486	-561	-655
Extraord./Min.Int./Pref.div.	0	0	0	0	0
Reported net profit	**1,635**	**360**	**987**	**1,139**	**1,330**
Net Margin (%)	3.2	0.7	1.7	1.7	1.8
Core NPAT	1,635	360	987	1,139	1,330

Per share data	2011	2012	2013E	2014E	2015E
Reported EPS (Rs)	6.36	1.40	3.84	4.44	5.18
Core EPS (Rs)	6.36	1.40	3.84	4.44	5.18
DPS (Rs)	1.20	1.30	1.50	2.50	2.50
CFPS (Rs)	-20.68	13.25	-16.69	-2.77	0.67
FCFPS (Rs)	-28.18	8.48	-19.21	-6.67	-3.22
BVPS (Rs)	92.62	93.88	92.32	93.85	96.13
Wtd avg ord shares (m)	257	257	257	257	257
Wtd avg diluted shares (m)	257	257	257	257	257

Growth rates	2011	2012	2013E	2014E	2015E
Sales revenue (%)	6.2	3.4	10.3	17.1	9.8
EBIT (%)	-2.7	-25.0	19.7	22.6	13.3
Core NPAT (%)	-10.7	-78.0	174.2	15.4	16.8
Core EPS (%)	-10.7	-78.0	174.2	15.4	16.8

Balance Sheet (Rsm)	2011	2012	2013E	2014E	2015E
Cash & cash equiv.	1,397	646	784	526	1,053
Accounts receivables	14,536	13,072	14,270	16,703	18,337
Inventory	8,960	12,335	12,843	13,913	13,019
Net fixed & other tangibles	7,215	7,610	7,333	7,324	7,229
Goodwill & intangibles	0	0	0	0	0
Financial & other assets	36,570	46,868	53,015	57,962	63,303
Total assets	**68,678**	**80,532**	**88,245**	**96,428**	**102,942**
Accounts payable	8,313	12,424	10,845	12,654	13,815
Short-term debt	0	0	0	0	0
Long-term debt	24,841	22,341	29,800	33,000	36,100
Provisions & other liab	11,737	21,655	23,889	26,669	28,337
Total liabilities	**44,891**	**56,421**	**64,534**	**72,323**	**78,252**
Shareholders' equity	23,787	24,111	23,710	24,105	24,690
Minority interests	0	0	0	0	0
Total equity	**23,787**	**24,111**	**23,710**	**24,105**	**24,690**
Net debt	**23,444**	**21,695**	**29,016**	**32,474**	**35,047**
Net debt to equity (%)	98.6	90.0	122.4	134.7	141.9

Valuation ratios	2011	2012	2013E	2014E	2015E
PE (x)	6.3	28.5	10.4	9.0	7.7
PB (x)	0.4	0.4	0.4	0.4	0.4
EV/EBITDA (x)	3.8	5.3	5.0	5.0	4.8
FCF yield (%)	-70.6	21.3	-48.1	-16.7	-8.1
Dividend yield (%)	3.0	3.3	3.8	6.3	6.3
Payout ratio (%)	19	93	39	56	48
ROE (%)	7.1	1.5	4.1	4.8	5.5

Cashflow (Rsm)	2011	2012	2013E	2014E	2015E
EBITDA	4,876	3,973	4,688	5,622	6,321
Working capital	-7,683	2,267	-6,198	-2,861	-2,253
Other	-2,504	-2,836	-2,775	-3,473	-3,896
Operating cashflow	**-5,310**	**3,404**	**-4,286**	**-712**	**173**
Capex	-1,928	-1,225	-649	-1,001	-1,001
Net acq/disposals	-2,596	-394	-1,000	-1,000	-1,000
Other	0	0	0	0	0
Investing cashflow	**-4,524**	**-1,619**	**-1,649**	**-2,001**	**-2,001**
Dividends paid	-358	-387	-447	-745	-745
Financing cashflow	**9,235**	**-2,535**	**6,072**	**2,455**	**2,355**
Net change in cash	**-600**	**-751**	**137**	**-258**	**527**
Free cashflow to s/holders	**-7,238**	**2,178**	**-4,934**	**-1,713**	**-828**

For further data queries on Citi's full coverage universe please contact CIRA Data Services Asia Pacific at CIRADataServicesAsiaPacific@citi.com or +852-2501-2791
For definitions of the items in this table, please click here.

Powered by: dataCentral

Update on Nelcast Power Project

- **Financial closure achieved –** As per management, NCC Power Project has achieved financial closure and the 3 lenders (PFC, REC, ICICI Bank) all have disbursed the first tranche of funds. The total project cost is Rs70bn, funded via debt of Rs53bn and the balance via equity.

- **NCC has invested Rs3.5bn of equity –** NCC has a 55% stake in the power project, and has invested Rs3.5bn of the total ~Rs9.3bn to be invested by them. The company has received the EPC order of Rs51.8bn (to be executed over 42 months) from the power subsidiary and has received Rs6.5-7bn as mobilization advance from the same. NCC has placed the order for the BTG equipment with Harbin and has paid them Rs2.1bn as an advance.

- **Coal linkage –** The project has received linkage up to 70% of the required quantity from Coal India (Mahanadi Coalfields). They plan to import the balance 30% from Indonesia. NCC has acquired a stake in an Indonesian mine and has paid $2.5-3mn of the total $10mn required to develop the mine.

- **Yet to sign PPAs –** NCC Power has been shortlisted to supply 500MW of power to AP at Rs3.7/unit, the company expects to sign the PPA soon. The company is looking to participate in case I bids in Karnataka and Tamil Nadu.

- **Looking for a strategic investor –** NCC and Gayatri Projects, the developers of the power project, are looking to dilute up to 49% stake in the power project to a strategic investor. Given the uncertainty regarding coal FSA and PPAs, we believe it would be challenging to get a potential investor excited about the project.

Need visibility on FSA, PPA to get constructive on the venture

When a plant is given a linkage, the quantity is for running plant at 85% utilization. According to *Business Standard*, Coal India has made a presentation to Ministry of Power/Coal that it can assure 60-65% of linkage in the 1st year, 50-55% in the 2nd year, 58% in 3rd year and 80% in the 4th year. Under this scenario we believe that even if Coal India signs the FSA, NCC might have to increase dependence on imported coal – further increasing cost of generation.

While we believe that achieving the financial closure of this project is positive and will drive revenue growth of NCC ltd (execution of the EPC order), we need visibility on coal availability and power purchase agreements to get positive on this venture.

Update on BOT projects

- **Traffic below estimates in some of the road projects –** On Western UP project the company has seen ~16-17% (Rs2mn per day vs. Rs2.4mn per day earlier) drop in traffic due to a SC ban on mining in the area which has impacted the movement of heavy traffic in the area. The daily toll collection at Pondicherry-Tindivanam project is Rs0.35mn per day vs. their target of Rs0.8mn/ day. On Bangalore-Elevated tollway project, the daily toll collection is Rs2.2mn/day vs a breakeven of Rs2.5mn/day.

- **Delay in Himachal Sorang project –** This project has been delayed due to hydrology related issues - the company now expects commissioning by December 2012.

Update on Order inflows

NCC booked order inflows of Rs101bn. Of this, Rs51.8bn is the EPC order placed by NCC Power. The company expects to win fresh orders of Rs85bn and is bullish about prospects in the buildings and water & irrigation segments.

It is pertinent to note that despite bidding for NHAI road projects, NCC has not won a single new BOT road project in the last 4-5 years. While the company is bullish about prospects in this space, we believe it remains to be seen if NCC has better success in the upcoming projects.

Some improvement in Balance Sheet/ Working Capital

As per company, debtor collection days have come down from 120 days at end of September, 2011 to 91 days at end of March 2012. The company also mentioned that they have bought down debt from Rs26bn at end of September 2011 to Rs22bn at end of March 2012.

Cutting estimates by 41%/42% for FY13E/14E

We are cutting our earnings estimates by 41%-42% for FY13E/14E driven by a cut in our revenue assumptions (on lower inflows/execution assumptions). We have cut our margin assumptions by 150bps for FY13E/14E. We are cutting our interest cost assumptions as we assume lower debt vs earlier.

Figure 1. NCC Estimate change

Sales	**FY13E**	**FY14E**
Old	65,724	74,241
New	57,871	67,738
change	-12%	-9%
EBITDA		
Old	9.6%	9.8%
New	8.1%	8.3%
Change bps	(150.0)	(150.0)
Interest Cost		
Old	3,078	3,510
New	2,789	3,212
change	-9%	-9%
PAT		
Old	1,661	1,963
New	987	1,139
change	-41%	-42%

Source: Citi Investment Research and Analysis

TP unchanged at Rs53

- **Core construction Business –** We have increased our target multiple to 7x Sept13E from 6x Dec 12E to reflect an improvement in order-book. Our target multiple is at a discount to its historical average PE, which we believe is appropriate because of the change in the operating environment, demand outlook and liquidity concerns.

- **International Business –** Our value of the international business goes down from Rs5/share to Rs3/share due to reduction in revenue visibility in the international business.

- **Real estate –** We cut our value of the real estate business sharply due to low visibility on the development projects

- We no longer reduce the value of investments in the Dubai and Sompet projects as we believe that the current stock price has factored the reduction in value caused by those investment decisions.

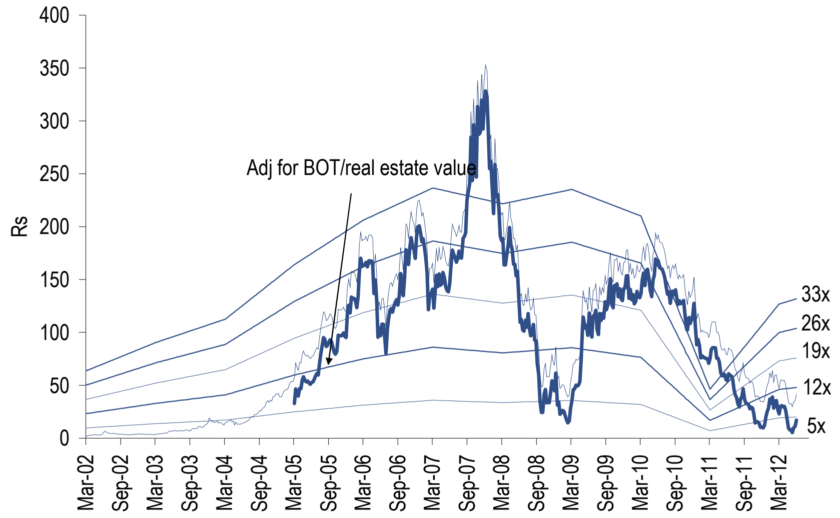
- **We upgrade the stock to BUY from Sell earlier** – while we are still concerned about NCC power project and its prospects in terms of FSA and PPA – we believe the current stock price (down 47% in the last 1 year) factors in some of these risks and provides a reasonable upside from current levels.

Figure 2. NCC – SOTP valuation

Part	Remarks	Value	Old Methodology	Value
NJCC Core Construction Business	P/E of 7x Sept 13E	29	P/E of 6x Dec 12E	37
International Business	P/E of 4x Sept 13E	3	P/E of 4x Dec 12E	5
BOT Projects	P/BV, 20% holding co discount	16	P/BV, 20% holding co discount	16
Real Estate investments	30% disc to BV	5	30% disc to NAV	13
Total Sum-of- Parts Value		**53**		**71**
			Less: Investments in Dubai	15
			Less: Investments in Sompet	3
NET equity value		**53**		**53**

Source: Citi Investment Research and Analysis

Figure 3. NCC PE Chart



Source: Citi Investment Research and Analysis

NCC

Company description

NCC Limited was established more than 27 years ago and is one of the fastest growing construction companies in India. NCC is a diversified player, has executed projects across sectors, and is well-positioned to capitalize on capex opportunities in areas such as transportation, power, and irrigation.

Investment strategy

We rate NCC shares as Buy with a target price of Rs53. We forecast a FD EPS CAGR of 16% for FY13E-15E and an ROE of ~4-6%. While we are still concerned about the NCC Power Project and its prospects in terms of FSA and PPA, we believe the current stock price (down 47% in the past year) factors in some of these risks and provides reasonable upside from current levels.

Valuation

Our sum-of-the-parts-based (SOTP) target price for NCC of Rs53 per share is based on the company's five distinct parts - the cash contract business, BOT projects, real estate projects, and land bank. We value the core construction business at a P/E of 7x Sept-13E FD EPS (a discount to our target multiple for L&T, given difference in scale and skill sets), to derive a value of Rs29 per share. We value its international subsidiaries at Rs3 based on a P/E of 4x Sept-13E, at a discount to its core construction business given lower visibility. We value its BOT projects at Rs16 per share, using the P/BV method to value its share in these projects (and applying a 20% holding company discount to account for execution risks) and value NCC Urban at Rs5 based on a 30% discount to estimated NAV (in-line with second-tier real estate companies in our coverage universe). We no longer reduce the value of investments in the Dubai and Sompet projects as we believe that the current stock price has factored the reduction in value caused by those investment decisions.

Risks

Key downside risks that could prevent the shares reaching our target price include: 1) increase in material prices, 2) increase in interest rates and 3) slow-down in order inflows and execution.

Appendix A-1

Analyst Certification

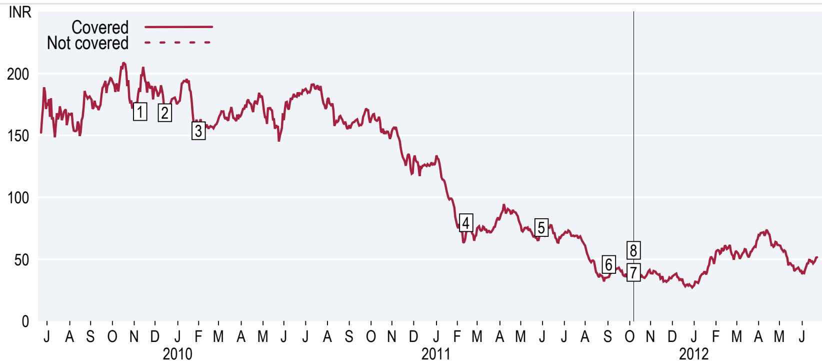
The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

IVRCL Infra & Projects (IVRC.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Deepal Delivala



	Date	Rating	Target Price	Closing Price
1	10-Nov-09	1M	*230.00	185.18
2	15-Dec-09	*2M	*192.50	173.23
3	1-Feb-10	*1M	*187.00	159.18

	Date	Rating	Target Price	Closing Price
4	14-Feb-11	1M	*110.00	72.25
5	31-May-11	1M	*88.00	73.00
6	2-Sep-11	1M	*48.00	35.75

	Date	Rating	Target Price	Closing Price
7	7-Oct-11	Stock rating system changed		
8	7-Oct-11	*1	48.00	36.05

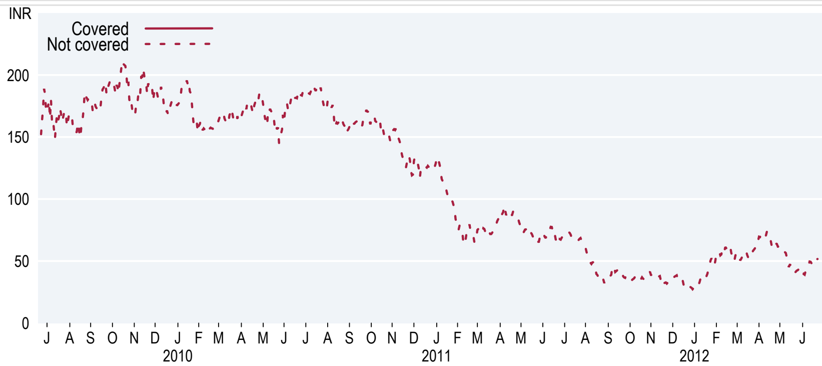
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

IVRCL Infra & Projects (IVRC.BO)

Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)

Analyst: Deepal Delivala



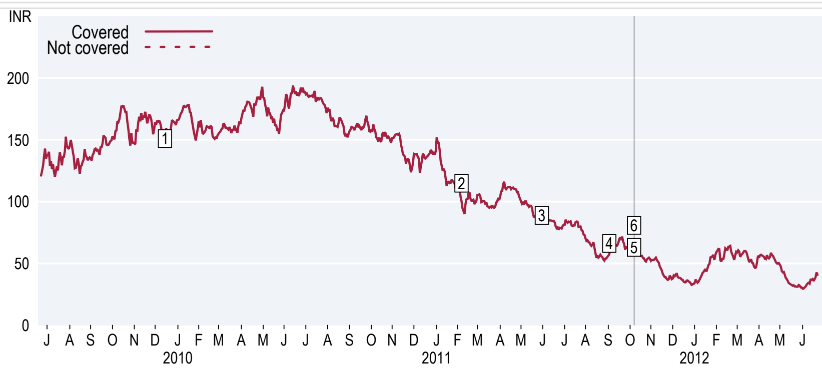
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

NCC (NCCL.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Deepal Delivala



	Date	Rating	Target Price	Closing Price
1	15-Dec-09	1M	*195.00	150.90
2	6-Feb-11	1M	*128.00	104.10

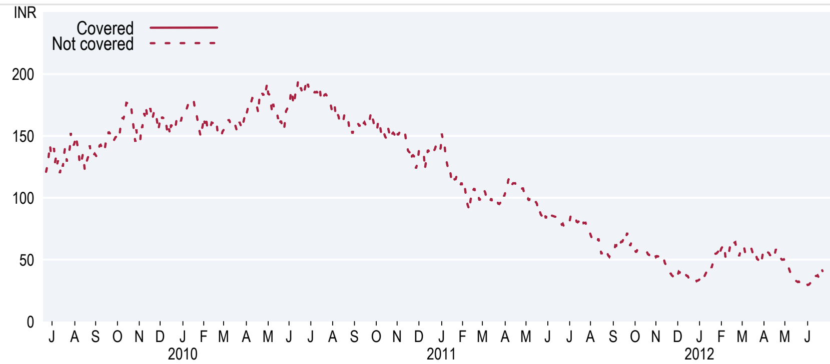
	Date	Rating	Target Price	Closing Price
3	31-May-11	*3M	*85.00	86.15
4	2-Sep-11	3M	*53.00	57.30

	Date	Rating	Target Price	Closing Price
5	7-Oct-11	Stock rating system changed		
6	7-Oct-11	*3	53.00	57.50

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

NCC (NCCL.BO)
Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)
Analyst: Deepal Delivala



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

---

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of IVRCL Infra & Projects, NCC. This position reflects information available as of the prior business day.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from IVRCL Infra & Projects in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: IVRCL Infra & Projects.

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 investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. 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 https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. 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.

Citi Investment Research & Analysis Ratings Distribution

	12 Month Rating			*Relative Rating*		
Data current as of 31 Mar 2012	**Buy**	**Hold**	**Sell**	**Buy**	**Hold**	**Sell**
Citi Investment Research & Analysis Global Fundamental Coverage	52%	37%	11%	10%	79%	10%
% of companies in each rating category that are investment banking clients	44%	42%	40%	47%	42%	43%

Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:
CIRA's stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.
Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.
Investment Ratings: CIRA's investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of CIRA management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.
Relative three-month ratings: CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings,** which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were:Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: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, 15% or less for High-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.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. 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. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited	Deepal Delivala; Venkatesh Balasubramaniam; Atul Tiwari, CFA

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 25 June 2012 03:57 PM on the issuer's primary market.

Citigroup Global Markets Inc. or its affiliates beneficially owns 5% or more of any class of common equity securities of IVRCL Infra & Projects.

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 issuer(s) 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 Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

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.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports.
Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.
For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

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** through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant 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. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. 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. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. 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. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and 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 to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant 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 **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego 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. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). 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. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold//Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). 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 **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. 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 **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. 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 a member of FINRA and registered with 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.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

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 CIRA's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

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 not be permitted.

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. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it 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. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs), CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual CIRA analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. CIRA simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by CIRA analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

CIRA product may source data from dataCentral. dataCentral is a CIRA proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.