

## India Electrical Equipment Suppliers

### Emerging trends hold promise in the event of a capex cycle turnaround

We focus on emerging trends in a 20-stock subset of the Indian electrical equipment sector. The cumulative market cap of the sector is US\$18bn, and BHEL (UW) accounts for one-third of this. BHEL constituted 32% of sector revenue and 60% of profits in the December quarter. Given the adverse demand supply and pricing dynamics in the power generation main plant (BTG) equipment market and deteriorating profitability and receivables position, BHEL has been a drag on sector trends viewed cumulatively and is our top UW. We conclude that ex-BHEL emerging trends in the sector position it favorably for a potential capex cycle turnaround, though frontline stocks have rallied prematurely in anticipation.

- **Starting from the top line:** Ex-BHEL sector revenue growth improved to 6.8% YoY in the Dec-q from sub-3% over the preceding three quarters. An export push amid limited domestic opportunities and a weak INR supported this outcome despite order backlogs that are down over the last one to two years. The quarterly order inflow run rate over the last three years has been weak and flattish, with no sign of a breakout till the Dec-q, and management commentaries are still doubtful of a near-term recovery, but alert to chasing certain pockets of growth in renewables (especially solar), grid stability and railways (esp. metros). There is a sub-trend in the industry segment exposure of this sector (20-40% of revenue). Both the pace of revenue growth and margins have been hit hard amid moderation in industrial activity and the weak liquidity positions of customers.
- **In margins lies the real delta:** Ex-BHEL margins for the sector improved 95bps YoY. More importantly, EBITDA margins appear to have recovered from their lows of CY12, mostly a reflection of cost control measures. Gross margins have improved over 2008 levels for ABB and have been fairly stable for Siemens, while declining steeply for CG. Despite the rightsizing of employee counts undertaken by companies, capacity under-utilization has resulted in higher employee costs and SG&A as a percentage of revenue for BHEL, ABB and Siemens. CG has fared better on reining in other expenses, as its factories are full. **The real benefits of operating leverage will be seen only once there is a definite pickup in order inflow momentum.**
- **Earnings growth momentum, an end result:** Ex-BHEL sector PAT in the Dec-q was Rs4.6bn, up 38% YoY. The momentum of sharp YoY PAT growth started with the Sep-q and is likely to continue in coming quarters, in our view, as margins crawl back slowly from recent troughs.
- **Rally in anticipation:** The expectation of an incrementally better macro environment and pickup in investment sentiment following the general elections has supported 17% outperformance by the sector vs. Sensex over the last six months.
- **Investment thesis:** A material pickup in private sector appetite for capex is not our base case in CY14. We stay UW on ABB and Siemens, as high valuations remain an overriding concern for us. Recurring earnings cuts and hopes of a turnaround in overseas subs have been the only constants at CG over the last two years. We remain Neutral on CG, as we believe the stock is a decent hold for investors with a medium-term investment horizon.

**See page 16 for analyst certification and important disclosures, including non-US analyst disclosures.**

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#### Electrical Equipment

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**Table 1: Price performance of listed India Electrical Equipment Supply universe**

	6m	12m	YTD CY14
Relative (%)	17	(41)	4
Absolute (%)	30	(36)	2

Source: Bloomberg, J.P. Morgan. Note: 'm' denotes month.

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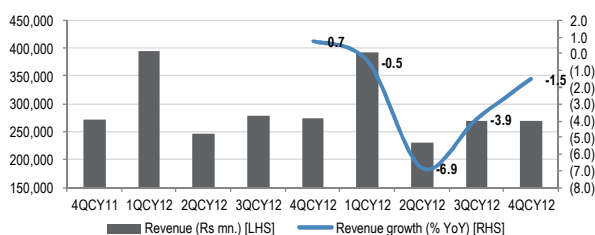
## Defining the universe and subset for analysis

We have identified 25 listed Indian electrical equipment suppliers with a cumulative market cap of US\$18bn, of which BHEL accounts for 33% (see Appendix I). The top 5 players (BHEL, SIEM, ABB, HAVL and CRG) account for 80% of the sector's market cap. For the analysis of trends following December quarter results, we have selected 20 companies that comprise 97% of the sector's market cap (the key exclusion is Suzlon). A brief description of the companies in the universe, sourced from Bloomberg, appears in Appendix II. The underlying data for the subset of companies used in this analysis are in Appendix III.

## Top-line trends

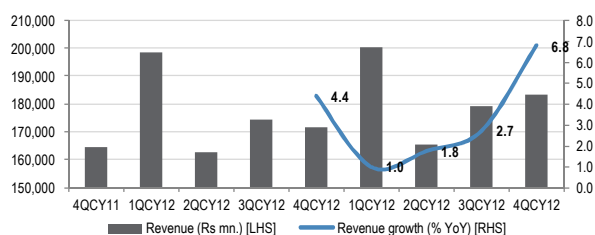
Sector revenue of Rs270bn in the December quarter was down 1.5% YoY and flat QoQ. Excluding BHEL, which accounts for 32% of sector revenue and reported weak quarterly numbers (15.5% top-line decline in Dec-q), the conclusion is more interesting. Ex-BHEL revenue growth has accelerated to 6.8% YoY (from sub-3% in the three preceding quarters) and is up 2.3% QoQ. This recovery was partly supported by export-led growth following steep INR depreciation over the last year. For the last reported financial year, FX-denominated sales were 48% of total revenue in the case of CG and 14-15% for Siemens and ABB. We also note the seasonality of the large revenue contribution in the March quarter.

Figure 1: Indian electrical equipment suppliers: Sector revenue trends



Source: J.P. Morgan, Bloomberg, Company data.

Figure 2: Indian electrical equipment suppliers: Sector revenue trends ex-BHEL



Source: J.P. Morgan, Bloomberg, Company data.

## Margin trends

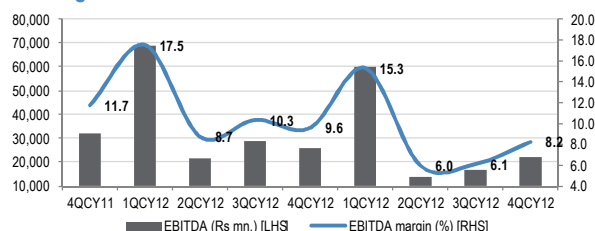
Given that BHEL accounts for 44.5% of sector EBITDA, a 460bps margin decline at BHEL in the Dec-q resulted in an overall decline of 140bps YoY for the sector. The sequential QoQ improvement in the Dec-q was also led primarily by BHEL. Ex-BHEL margins for the sector improved 95bps YoY and were down 20bps QoQ. **More importantly, EBITDA margins appear to have recovered from their lows of CY12, mostly a reflection of cost control measures.** (See the section on sub-trends in cost structure later in this report.)

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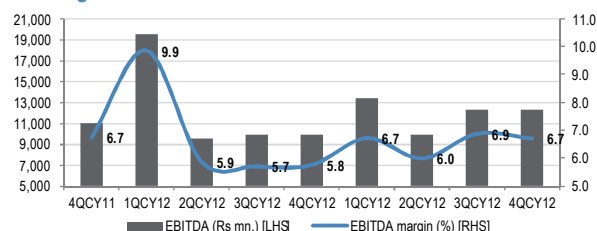
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Figure 3: Indian electrical equipment suppliers: Sector EBITDA and margin trends



Source: J.P. Morgan, Bloomberg, Company data.

Figure 4: Indian electrical equipment suppliers: Sector EBITDA and margin trends ex-BHEL

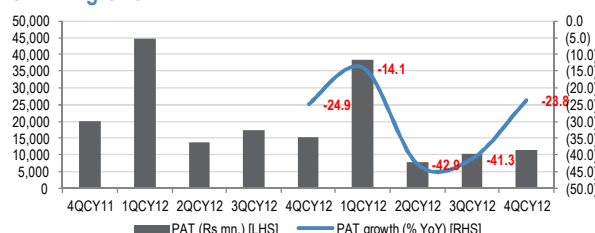


Source: J.P. Morgan, Bloomberg, Company data.

## Bottom-line trends

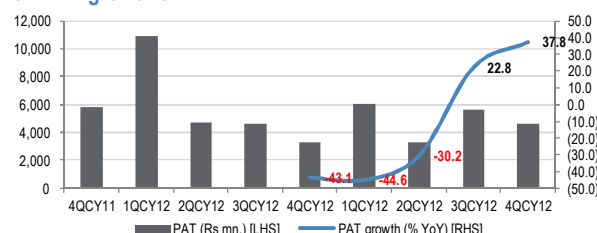
Dec-q sector PAT of Rs11.5bn was down 24% YoY, led by a 41% decline in BHEL's PAT. BHEL contributes 60% of sector profit. Ex-BHEL sector PAT was Rs4.6bn, up 38% YoY. The momentum of sharp YoY PAT growth started in the Sep-q. Given the improvement of EBITDA margins from the lows of CY12 and their stabilization, we believe this trend is likely to continue in coming quarters, too. The companies that saw sharp bottom-line increases include ABB (+2.5x YoY), Alstom T&D India (+92% YoY), CG (from loss to profit) and Havells India (+28% YoY).

Figure 5: Indian electrical equipment suppliers: Sector PAT and YoY PAT growth



Source: J.P. Morgan, Bloomberg, Company data.

Figure 6: Indian electrical equipment suppliers: Sector PAT and YoY PAT growth ex-BHEL



Source: J.P. Morgan, Bloomberg, Company data.

## Order inflow trends

Order inflows for most key electrical equipment suppliers have remained remarkably flat over last few quarters. Cumulative inflows have moderately declined over the last four quarters for ABB, CG and Alstom T&D. BHEL inflows are tracking much below annual run rates of Rs500-600bn seen in the past. **The government's late push to clearances that started last year is not yet reflected in the pace of order inflows.** Management commentary on inflow opportunities from industry segments like steel, cement and paper remains bearish; power generation is suffering from sector-specific issues; and there is a consensus among players on tapping the growth opportunity presented by railways (especially metro rail), grid stability and renewables (especially solar). Reliance on base orders/short-cycle jobs has increased in the face of uncertainties pertaining to long-lead projects and the constrained liquidity positions of customers. An improvement in capex appetite, especially for the private sector, is key to growth momentum in order inflows, which in turn is

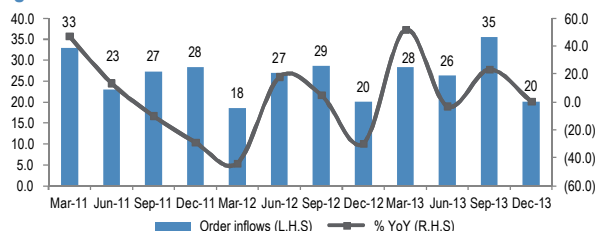
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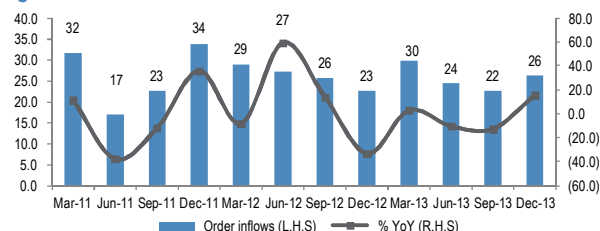
required to drive top-line growth. Revenue growth is necessary to drive margin expansion led by operating leverage, and all this should finally translate into an upward shift in the earnings growth trajectory.

Figure 7: Siemens India: Order inflow trends



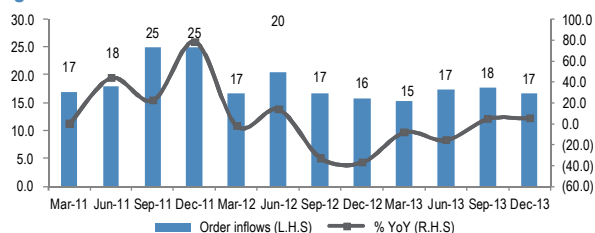
Source: J.P. Morgan, Company data.

Figure 8: CG: Consolidated order inflows



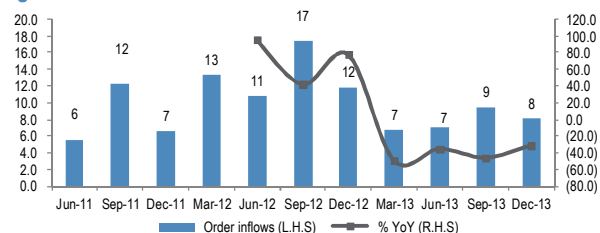
Source: J.P. Morgan, Company data.

Figure 9: ABB India: Order inflow trends



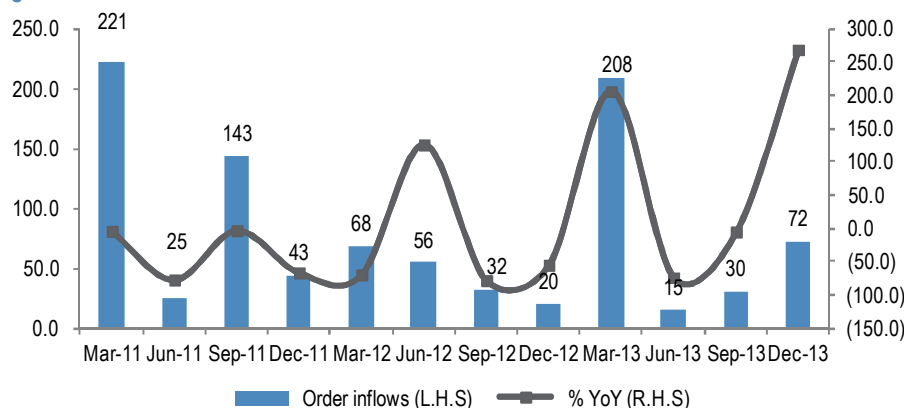
Source: J.P. Morgan, Company data.

Figure 10: Alstom T&D India: Order inflows



Source: J.P. Morgan, Company data. Note: Sep-12 includes a Rs10.5bn contribution from an HVDC order from PGCIL.

Figure 11: BHEL: Order inflows



Source: J.P. Morgan, Company data.

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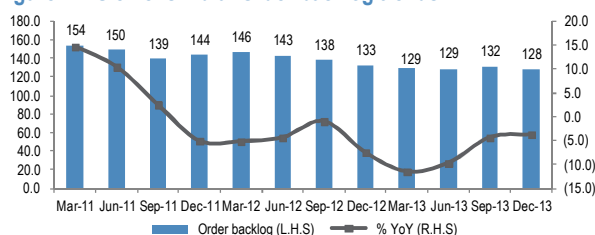
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## Order backlog and book-to-bill trends

Order backlog over the last two years is down 16% at ABB, 31% at BHEL and 11% at Siemens. CG's order backlog has benefited from its significant overseas footprint, given steep INR depreciation and order accretion via the M&A route; the INR order backlog is up 23% over the last two years and 9% over the last year. However, India order book (~40% of total) is down 2% over the last year. Alstom T&D's order backlog has been flat over the last year.

Figure 12: Siemens India: Order backlog trends



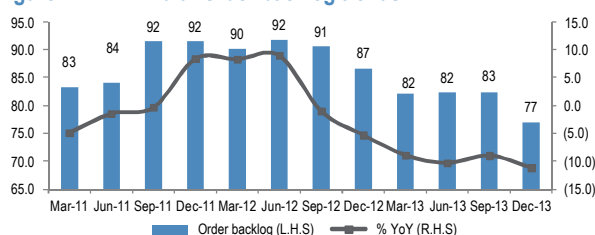
Source: J.P. Morgan, Company data.

Figure 13: CG: Consolidated backlog inflows



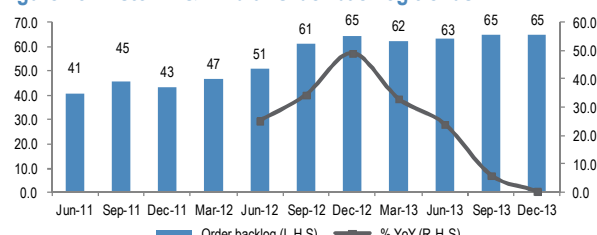
Source: J.P. Morgan, Company data.

Figure 14: ABB India: Order backlog trends



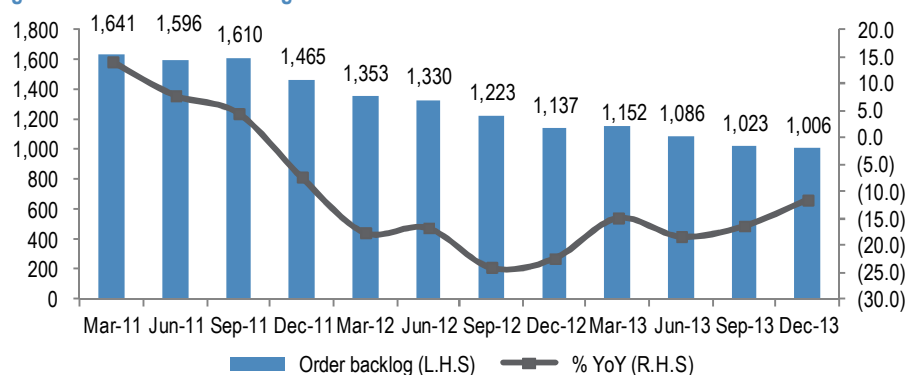
Source: J.P. Morgan, Company data.

Figure 15: Alstom T&D India: Order backlog trends



Source: J.P. Morgan, Company data.

Figure 16: BHEL: Order backlog trends



Source: J.P. Morgan, Company data.

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## Sub-trends in the cost structure

In an anemic growth environment, companies have focused on cost control measures.

### Gross margins

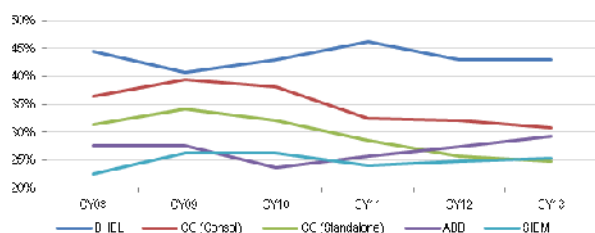
ABB has fared the best on gross margins, having marginally improved the RM/sales ratio since 2008. Even Siemens has managed to keep gross margins fairly stable. CG has fared the worst on this count. BHEL's gross margins have deteriorated from peak. In our view, the worst of the price cuts by BTG equipment suppliers to win orders is yet to be seen.

### Employee costs

The last reported employee count was down at ABB (6,371 as of Dec-13, -5.6% YoY), Siemens (11,539 as of Sep-13, -4.2% YoY) and BHEL (48,399 as of Mar-13, -2% YoY). Despite rightsizing measures, employee costs to sales have inched up as a percentage of revenue owing to capacity under-utilization or large overseas footprints in the case of CG, where business restructuring benefits are yet to be realized.

Figure 17: Gross profit margin trends

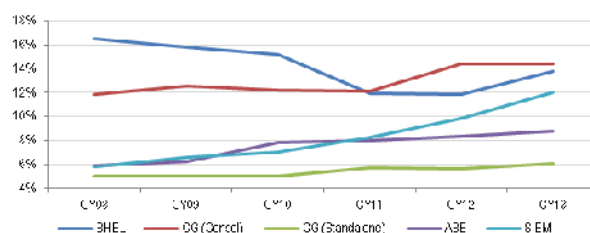
In % of net sales



Source: J.P. Morgan, Company data.

Figure 18: Employee cost as a % of net sales

In %



Source: J.P. Morgan, Company data.

### Other expenses

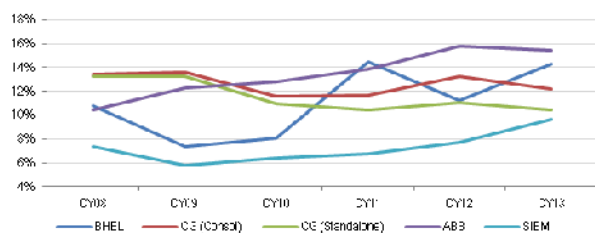
Because CG's factories are fully booked, other expenses as a percentage of sales have been fairly stable at the consolidated level. However, this ratio has deteriorated for ABB, BHEL and Siemens.

### OPM

EBITDA margin deterioration from peak has been sharpest for CG and Siemens; ABB has managed to recover some lost ground, but is still way below peak. BHEL margins have deteriorated 500bps from peak in CY13 and are yet to stabilize.

Figure 19: Other expenses as a % of net sales

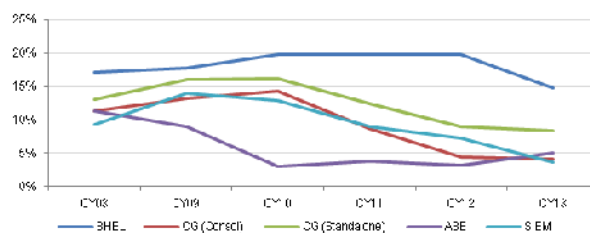
In %



Source: J.P. Morgan, Company data.

Figure 20: EBITDA margin

In %



Source: J.P. Morgan, Company data.

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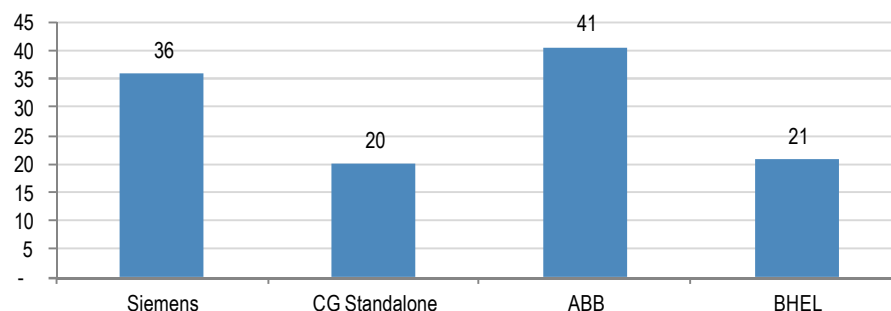
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## Sub-trends in industry segment performance

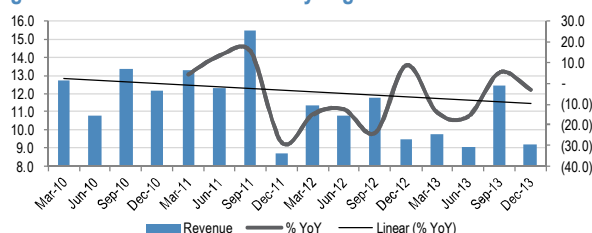
Volumes are constrained in equipment manufacturers' industry segment due to the macro slowdown and tight liquidity situation. Industry segment accounts for 20-40% of revenue for front-page sector companies. This is evident in the revenue growth slowdowns (or even declines) and sharp EBIT margin erosion of the industry segment.

Figure 21: Industry segment revenue as a % of total over the last year



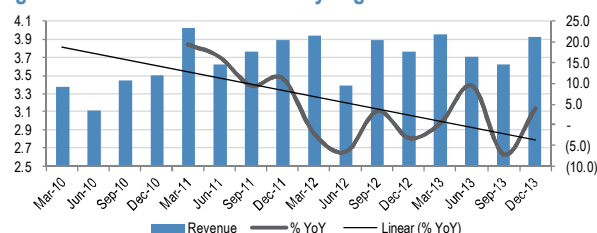
Source: J.P. Morgan, Company data.

Figure 22: Siemens India: Industry segment revenue trends



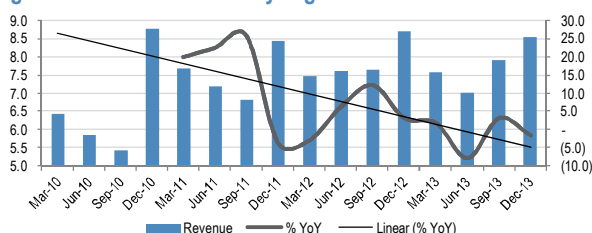
Source: J.P. Morgan, Company data.

Figure 23: CG standalone: Industry segment revenue trends



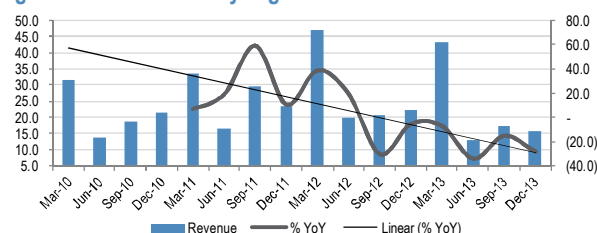
Source: J.P. Morgan, Company data.

Figure 24: ABB India: Industry segment revenue trends



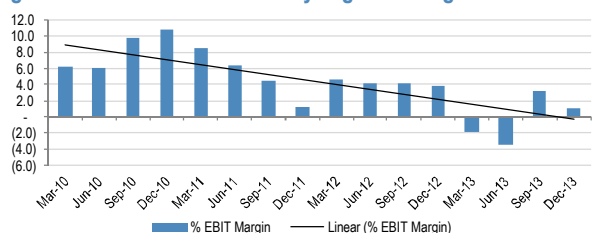
Source: J.P. Morgan, Company data.

Figure 25: BHEL: Industry segment revenue trends



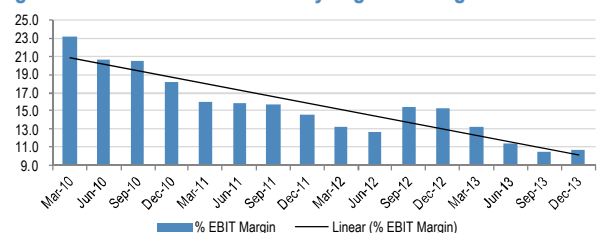
Source: J.P. Morgan, Company data.

Figure 26: Siemens India: Industry segment margin trends



Source: J.P. Morgan, Company data.

Figure 27: CG standalone: Industry segment margin trends



Source: J.P. Morgan, Company data.

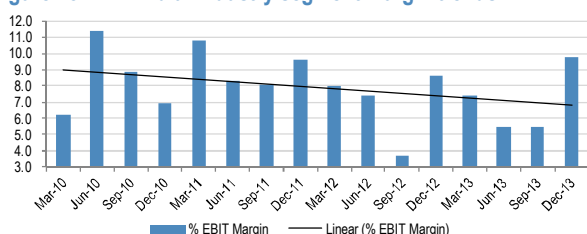


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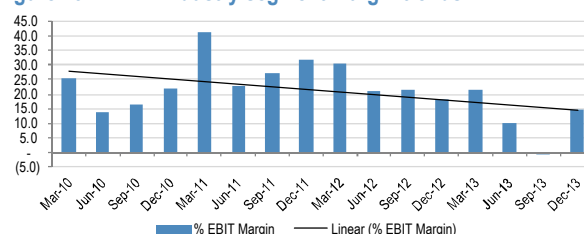
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Figure 28: ABB India: Industry segment margin trends



Source: J.P. Morgan, Company data.

Figure 29: BHEL: Industry segment margin trends



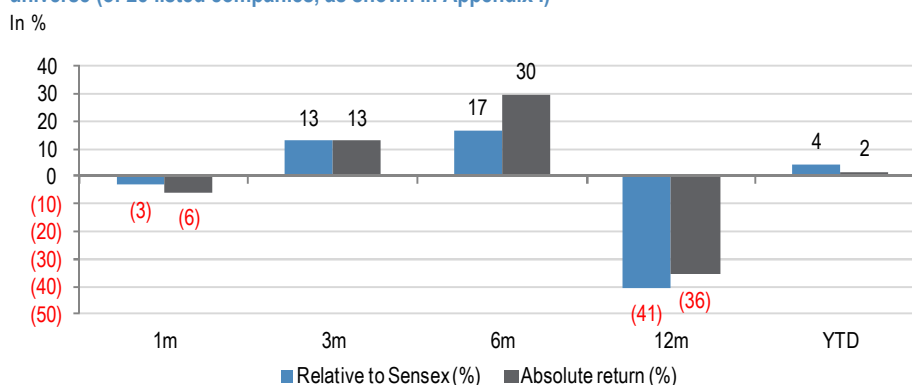
Source: J.P. Morgan, Company data.

## Price performance trends

The electrical equipment supplier sector has underperformed the Sensex by 41% over the last year and has marginally outperformed Sensex YTD in 2014. The expectation of an incrementally better macro environment and a pickup in investment sentiment following the general elections (pro-reform stable mandate at the Centre) has supported 17% outperformance of the sector vs. Sensex over the last six months. (See individual stock price performance in Appendix I.)

The earnings growth momentum (ex-BHEL) off a low base owing to margin improvement has also helped. The stocks—especially ABB and CG—have rallied (prematurely, in our view) following results in anticipation of a meaningful margin recovery in electrical equipment suppliers (ex-BHEL) led by operating leverage gains following an expected pickup in order inflows. A full-blown recovery in private sector capex appetite or an investment cycle turnaround is not our base case in 2014. We stay UW the electrical equipment sector.

Figure 30: Absolute and relative price performance of Indian electrical equipment supplier universe (of 25 listed companies, as shown in Appendix I)



Source: J.P. Morgan, Bloomberg. Note: 'm' denotes month.

## Consensus valuations

To sum up the mood: Order inflows have yet to pick up, and management commentaries are still hopeful at best, but not confident of an investment cycle recovery over the next year. Order backlogs are down YoY. However, companies have positioned themselves for a capex cycle recovery and focused on cost management in the lean period over the last two to three years, whose dividends they hope to reap in the future. Earnings growth momentum for the sector (ex-BHEL) is high as margins crawl back slowly from the troughs.

High valuations remain an overriding concern for us: We stay UW on ABB and Siemens. The demand supply dynamics for main plant equipment suppliers is stacked against BHEL, in our view, the pricing environment is likely to be weak owing to high competition, and the quality of receivables on the balance sheet has deteriorated. We stay UW on BHEL, too. Recurring earnings cuts and hopes of a turnaround in overseas subs have been the only constants at CG over the last two years. We remain Neutral on CG, as we believe the stock is a decent hold for investors with a medium-term investment horizon. A domestic investment cycle recovery, especially a material pickup in private sector appetite for capex, is not our base case in CY14.

**Table 2: India electrical equipment suppliers: Consensus valuations**

Company	Price (Rs)	Mkt. cap (US\$ M)	Avg. daily traded value (US\$ M)	Consol? (Y/N)	P/E (x)			P/B (x)		
					FY13	FY14E	FY15E	FY14E	FY15E	FY16E
ABB India Ltd	658	2,217	2.0	N	78.8	48.3	36.0	4.8	4.3	3.7
Alstom India Ltd	330	353	0.2	Y	12.1	13.9	12.4	2.5	2.2	2.0
Honeywell Automation India Ltd	2,615	368	0.1	N	26.8	23.9	19.6	2.6	2.3	-
Alstom T&D India Ltd	190	773	0.2	N	54.0	39.7	28.1	4.1	3.9	3.6
Bharat Heavy Electricals Ltd	151	5,875	13.9	N	5.6	9.7	12.0	1.1	1.1	1.0
TD Power Systems Ltd	246	130	0.0	Y	19.6	27.3	14.5	1.6	1.4	1.3
Crompton Greaves Ltd	121	1,207	5.8	Y	NM	27.4	15.3	2.1	1.9	1.7
Havells India Ltd	761	1,510	2.8	Y	16.3	19.3	16.4	5.3	4.2	3.4
Siemens Ltd	574	3,252	3.7	Y	22.4	34.4	27.3	4.4	3.9	3.7
Triveni Turbine Ltd	61	322	0.1	Y	20.0	25.4	17.7	11.0	7.9	6.1
Kalpataru Power Transmission L	80	194	0.3	N	8.9	7.9	6.6	0.6	0.6	0.5
KEC International Ltd/India	53	215	0.4	Y	20.8	13.8	7.4	1.1	1.0	0.9
Jyoti Structures Ltd	28	36	0.4	N	3.5	3.1	2.9	0.3	0.3	0.2
Finolex Cables Ltd	77	188	0.9	N	8.1	6.6	5.7	1.1	0.9	0.8
Sterlite Technologies Ltd	20	126	0.3	N	16.6	14.9	10.0	0.6	0.6	0.6

Source: Bloomberg. Priced as of 19 Feb 2014.

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## Appendix I: India electrical equipment suppliers universe: Price performance

Table 3: Price performance of electrical equipment suppliers

%

Company	Mkt cap (US\$ M)	Price (Rs)	Absolute performance (%)					Relative performance (%)				
			1m	3m	6m	12m	YTD	1m	3m	6m	12m	YTD
ABB India Ltd	2,326	685.3	8	12	47	12	(1)	10	12	34	7	1
Alstom India Ltd	354	330.7	(5)	(9)	7	(4)	(13)	(2)	(9)	(6)	(9)	(10)
Schneider Electric Infrastruct	263	67.6	(4)	10	20	(13)	(5)	(1)	10	7	(18)	(3)
Honeywell Automation India Ltd	367	2560.3	(1)	7	10	(1)	(7)	2	7	(3)	(6)	(4)
Alstom T&D India Ltd	782	188.6	4	17	52	13	(6)	6	17	39	8	(3)
Bharat Heavy Electricals Ltd	5,855	150.0	(14)	6	47	(29)	(16)	(12)	6	34	(34)	(13)
TD Power Systems Ltd	131	245.5	0	24	10	(4)	3	3	24	(3)	(9)	6
Bharat Bijlee Ltd	30	336.0	(8)	3	8	(34)	(8)	(5)	3	(5)	(39)	(6)
Crompton Greaves Ltd	1,197	122.3	2	9	41	19	(8)	5	9	28	14	(5)
Havells India Ltd	1,552	771.0	(5)	3	25	13	(2)	(2)	3	12	8	0
Emco Ltd	25	24.8	(9)	64	103	(7)	(5)	(6)	64	90	(11)	(3)
Siemens Ltd	3,238	587.8	(4)	0	28	(0)	(15)	(1)	0	15	(5)	(12)
Suzlon Energy Ltd	394	10.2	(4)	4	53	(57)	(1)	(1)	4	40	(62)	1
Transformers & Rectifiers Indi	18	78.6	(2)	(18)	31	(15)	(7)	0	(18)	18	(20)	(4)
Voltamp Transformers Ltd	61	385.4	(8)	5	10	8	(7)	(5)	5	(3)	3	(5)
Triveni Turbine Ltd	310	57.5	(4)	17	16	6	12	(2)	17	3	1	15
Bilpower Ltd	1	1.6	(17)	(21)	(3)	(77)	(21)	(14)	(21)	(16)	(82)	(18)
Kalpataru Power Transmission L	216	86.2	3	9	45	(0)	(2)	6	9	32	(5)	0
KEC International Ltd/India	229	56.3	1	36	124	0	(3)	4	36	111	(5)	(0)
Jyoti Structures Ltd	36	28.0	(4)	30	64	(26)	(12)	(2)	30	51	(30)	(9)
Apar Industries Ltd	74	122.9	(16)	(0)	28	(16)	(21)	(13)	(0)	15	(21)	(18)
Diamond Power Infrastructure L	37	45.9	(12)	(2)	46	(33)	(22)	(9)	(2)	33	(38)	(20)
Finolex Cables Ltd	188	77.3	(6)	4	45	42	(8)	(3)	5	32	37	(5)
Universal Cables Ltd	9	25.0	(10)	(2)	15	(33)	(7)	(7)	(2)	2	(38)	(5)
Sterlite Technologies Ltd	127	20.3	(17)	(8)	10	(34)	(19)	(14)	(8)	(3)	(39)	(16)

Source: Bloomberg. Priced as of 20 Feb 2014.

## Appendix II: Bloomberg description of companies

Table 4: Company description of equipment suppliers

Company	Bloomberg description
ABB India Ltd	ABB India Limited undertakes engineering and construction projects and manufactures heavy engineering and industrial equipment. The Company undertakes projects in the field of energy production, power transmission, transportation, process automation and pollution control. ABB India's products include pollution control equipment, switch gears and high current rectifiers.
Alstom India Ltd	Alstom India Limited supplies power generation services and equipment. The Company provides energy generation through hydro power, gas turbine-based combined power plants, and steam power plants. The Company also designs, manufactures, and supplies large scale transportation systems, electricity transmission systems, and energy management systems.
Schneider Electric Infrastructure	Schneider Electric Infrastructure Ltd. manufactures electricity power distribution and secondary distribution equipment, and distribution transformers. The Company produces medium voltage switchgears, distribution transformers and substation automation equipment.
Honeywell Automation India Ltd	Honeywell Automation India Limited supplies industrial automation and control solutions to the petrochemicals, refining, oil and gas, mining, metal and power industries.
Alstom T&D India Ltd	Alstom T&D India Limited manufactures a range of power transmission and distribution equipment. The Company builds high- and medium-voltage substations and develops technologies to manage power grids worldwide.
Bharat Heavy Electricals Ltd	Bharat Heavy Electricals Limited manufactures power plant equipment. The Company's products include gas turbines, generators, thermal sets, diesel shunters, turbo sets, hydro sets, power transformers, switch gears, circuit breakers and boilers. The Company also manufactures compressors, valves, rectifiers, pumps, capacitors, oil rigs, as well as castings and forgings.
TD Power Systems Ltd	Td Power Systems Private Limited was founded in 1999. The Company's line of business includes manufacturing motors and generators.
Bharat Bijlee Ltd	Bharat Bijlee Limited manufactures electric motors and transformers. The Group also designs and creates Speed Drive Systems for sugar centrifugals, in addition to controllers for VSD systems. Bharat Bijlee also undertakes construction projects.
Crompton Greaves Ltd	Crompton Greaves Ltd. manufactures, distributes, installs and services electrical and allied equipment such as transformers, reactors, switchgear control equipment & accessories, industrial motors, fractional horse power motors and pumps. The Company also manufactures railway & electronic equipment, communication systems, computers, software, lighting equipment and other items.
Havells India Ltd	Havells India Limited manufactures electrical products. The Company's products include building circuit protection equipment, industrial switchgears, energy meters, cables & wires, modular switches, fans and lighting products.
Emco Ltd	Emco Limited manufactures various types of high tension transformers and electronic energy meters. The Group has created a vertical portal for the electricity industry which provides information and e-commerce services.
Indo Tech Transformers Ltd	Siemens Ltd. has its operations in various areas: in the transportation sector it delivers high speed trains, in the lighting sector it manufactures small light bulbs. In the healthcare sector Siemens executes complete solutions for hospitals, for the industry sector it builds airports as well as produces contracts & for the communication segment it provides public network to mobiles.
Suzlon Energy Ltd	Suzlon Energy Ltd. designs, manufactures, operates, and maintains wind generating equipment. The Company constructs large wind parks.
Transformers & Rectifiers Indi	Transformers & Rectifiers India Limited manufactures a wide range of transformers. The Company's products include power generation, transmission, and distribution transformers.
Voltamp Transformers Ltd	Voltamp Transformers Ltd. manufactures industrial electricity transformers.
Triveni Turbine Ltd	Triveni Turbine Ltd. manufactures industrial steam turbines. The Company offers customized Condensing and Back Pressure steam turbines for industry segments as varied and diverse as Biomass IPP, Municipal Solid Waste IPP, District Heating, Palm Oil, Paper, Sugar, Textiles, Metals, Cement, and Oil and Gas.
Bilpower Ltd	Bilpower Ltd. manufactures transformers, electrical laminations, stampings, and ready to assemble cores for distribution transformers.
Kalpataru Power Transmission L	Kalpataru Power Transmission Limited manufactures transmission line towers for power distribution which are sold to The Power Grid Corporation of India and State Electricity Boards. The Company also exports its products to various countries and it also develops real estate.
KEC International Ltd/India	KEC International Limited is a power transmission company which is involved in the design, manufacture, supply and construction of turnkey projects of power transmission lines. The company also installs fiber optical cable and provides services for Satellite/GPRS surveys.
Jyoti Structures Ltd	Jyoti Structures Limited manufactures and distributes transmission line towers, structures and parts.
Apar Industries Ltd	Apar Industries Ltd. manufactures aluminum conductors for power transmission. The Company also manufactures polymers, synthetic rubbers, latexes, transformer oils, pharmaceutical oils and other specialty oils.
Diamond Power Infrastructure L	Diamond Power Infrastructure Ltd. manufactures integrated cables and conductors. The Company's products include LT Electrical Power Cables, Control & Instrumentation Cables, Aluminum Conductors Steel Reinforced (ACSR), and All Aluminum Alloy Conductors (AAAC).
Finolex Cables Ltd	Finolex Cables Ltd. manufactures a wide range of telecommunication and electrical cables. The Company's products include flexible cables for appliances and industrial use electrification, winding wires, automobile cables, welding cables, and cables for submersible pumps. The Company also manufactures jelly filled phone cables, high frequency/radio frequency cables and PVC Sheets.
Universal Cables Ltd	Universal Cables Ltd. manufactures a wide range of wire and cable products. The Company's products include power cables, AAC/ACSR cables, aluminum rods, capacitors, cross linked polyethylene compound wires, semi-conducting, and other special grades of wires. Universal Cables also manufactures CATV cables, LAN cables, telephone switching cables, and aerial bunched cables.
Sterlite Technologies Ltd	Sterlite Technologies Limited, created via a spin-off of the telecom business of Sterlite Industries, provides optical fiber, cable and jelly filled telecom cable products.

Source: Bloomberg.

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## Appendix III: Underlying data for subset

Table 5: Revenue for equipment suppliers

Rs in millions

	CY11 1Q	CY11 2Q	CY11 3Q	CY11 4Q	CY12 1Q	CY12 2Q	CY12 3Q	CY12 4Q	CY13 1Q	CY13 2Q	CY13 3Q	CY13 4Q
ABB India Ltd	17,960	17,125	17,435	21,999	17,903	18,838	18,086	20,823	19,700	17,416	17,859	22,039
Alstom India Ltd	7,789	2,872	6,007	4,793	11,239	4,414	7,417	4,894	11,122	5,390	5,922	5,331
Schneider Electric Infra	-	-	-	4,068	2,898	3,313	2,627	4,139	3,026	2,731	2,655	4,160
Honeywell Autom India	3,530	3,491	4,151	5,030	4,132	3,866	4,079	4,535	3,854	4,338	4,359	4,519
Alstom T&D India Ltd	9,949	9,989	10,549	6,833	10,137	6,755	6,830	7,129	10,958	5,858	8,168	8,483
BHEL	183,805	72,715	105,455	107,431	195,889	84,390	105,616	102,197	192,044	64,581	89,844	86,349
TD Power Systems	-	-	2,634	2,825	2,905	1,532	1,619	955	1,866	726	1,022	1,223
Bharat Bijlee Ltd	2,064	1,149	1,828	2,006	2,228	1,042	1,365	1,122	1,896	1,052	1,046	1,537
Crompton Greaves	29,080	24,377	27,055	30,280	30,774	28,111	29,242	29,718	33,873	31,572	32,049	33,520
Havells India Ltd	8,453	8,027	8,518	8,982	10,485	10,353	9,642	10,584	11,696	10,513	11,740	11,844
Emco Ltd	3,368	1,880	1,979	1,949	2,287	1,657	1,713	1,626	1,692	1,382	1,848	1,797
Siemens Ltd	31,182	27,968	36,533	23,969	37,973	28,433	33,752	24,962	29,556	26,426	32,589	23,939
Voltamp Transformers	1,490	941	1,355	1,455	1,946	996	1,108	1,301	1,750	929	980	1,094
Triveni Turbine Ltd	-	-	1,823	1,463	1,428	1,114	1,797	1,751	1,906	1,106	1,229	1,409
Kalpataru Pwr Transm	8,846	5,846	5,833	8,008	10,738	6,994	7,147	8,897	10,316	8,896	9,622	10,513
KEC International	15,590	10,229	12,632	14,596	20,690	13,641	16,683	17,970	21,500	17,464	17,780	22,016
Jyoti Structures Ltd	7,218	6,377	6,321	5,872	7,355	6,548	5,929	6,197	9,385	7,113	6,493	6,626
Apar Industries Ltd	7,855	6,881	7,393	8,633	8,978	11,169	11,038	11,381	11,645	9,454	11,402	10,799
Finolex Cables Ltd	5,394	4,607	4,990	4,995	6,048	5,180	5,860	5,343	6,321	5,538	5,931	5,631
Sterlite Technologies	6,822	5,473	7,073	6,635	8,093	8,661	8,421	8,290	8,165	7,583	6,425	6,798

Source: Bloomberg.

Table 6: EBITDA Margin for equipment suppliers

%

	CY11 2Q	CY11 3Q	CY11 4Q	CY12 1Q	CY12 2Q	CY12 3Q	CY12 4Q	CY13 1Q	CY13 2Q	CY13 3Q	CY13 4Q
ABB India Ltd	4.9	1.0	4.9	4.2	5.6	3.7	3.2	5.4	6.3	5.9	6.8
Alstom India Ltd	1.8	7.4	(0.7)	18.8	2.9	8.5	(7.1)	16.5	3.8	5.4	(2.8)
Schneider Electric Infra	-	-	8.0	8.3	1.2	0.6	4.1	3.4	(1.2)	(8.0)	(3.6)
Honeywell Autom India	10.7	6.5	9.1	6.0	3.5	7.0	11.5	6.2	8.4	3.2	9.4
Alstom T&D India Ltd	7.8	10.3	8.3	10.1	7.0	4.3	7.5	10.2	10.3	9.3	8.5
BHEL	15.3	18.6	19.4	25.2	14.2	18.0	16.0	24.2	6.0	4.6	11.4
TD Power Systems	-	10.6	8.2	8.8	7.3	6.7	9.5	13.9	(9.2)	2.7	3.4
Bharat Bijlee Ltd	2.3	4.3	7.2	8.8	(1.5)	(1.7)	(1.4)	1.5	(7.1)	(5.8)	4.9
Crompton Greaves	7.5	8.4	6.0	6.9	4.3	4.7	0.1	2.3	4.6	5.0	5.0
Havells India Ltd	11.3	13.6	14.2	12.0	12.6	12.4	13.2	12.5	13.4	14.4	13.8
Emco Ltd	9.9	10.0	8.5	10.7	11.8	10.8	11.6	10.3	12.8	10.0	11.9
Siemens Ltd	9.0	6.6	5.1	13.0	1.6	2.9	6.2	2.5	(0.2)	5.4	6.2
Voltamp Transformers	9.4	9.2	2.8	8.5	3.9	4.5	6.5	9.6	3.8	1.4	2.2
Triveni Turbine Ltd	-	22.3	24.0	28.1	22.7	24.7	27.3	22.2	19.0	9.6	22.2
Kalpataru Pwr Transm	11.4	12.1	11.3	12.3	10.1	8.9	10.0	9.7	10.3	9.5	8.9
KEC International	9.4	7.2	6.8	8.2	6.7	5.1	5.8	4.1	5.0	6.3	6.4
Jyoti Structures Ltd	11.0	10.8	10.1	11.2	8.8	9.7	10.1	10.6	9.9	9.1	9.4
Apar Industries Ltd	4.6	0.4	(0.2)	5.5	-	4.2	8.7	6.9	8.0	8.7	5.1
Finolex Cables Ltd	7.5	8.0	8.3	9.6	9.4	11.9	8.0	10.5	9.3	12.9	7.9
Sterlite Technologies	5.5	7.1	7.9	8.2	8.0	6.0	6.8	8.5	10.8	8.4	7.4

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Table 7: PAT for equipment suppliers

Rs in millions

	CY11 1Q	CY11 2Q	CY11 3Q	CY11 4Q	CY12 1Q	CY12 2Q	CY12 3Q	CY12 4Q	CY13 1Q	CY13 2Q	CY13 3Q	CY13 4Q
ABB India Ltd	595	387	222	641	476	516	214	168	426	403	381	586
Alstom India Ltd	845	63	286	(39)	1,374	129	546	(146)	1,309	270	278	(76)
Schneider Electric Infra	-	-	-	181	64	(51)	(100)	65	(99)	(150)	(318)	(264)
Honeywell Autom India	318	266	157	339	166	118	212	357	153	281	140	289
Alstom T&D India Ltd	288	180	478	302	454	230	(139)	98	482	150	208	189
BHEL	27,980	8,155	14,120	14,326	33,798	9,209	12,745	11,819	32,375	4,654	4,560	6,948
TD Power Systems	-	-	149	178	207	145	76	57	140	52	29	1
Bharat Bijlee Ltd	46	14	59	79	123	(24)	(24)	(16)	16	(78)	(65)	7
Crompton Greaves	2,896	795	1,167	771	1,003	859	421	(687)	253	601	584	620
Havells India Ltd	690	576	702	789	915	801	870	947	1,097	947	1,257	1,215
Emco Ltd	48	17	18	14	31	8	8	5	5	7	40	10
Siemens Ltd	2,777	1,548	1,692	707	3,040	364	643	636	299	(488)	1,046	651
Voltamp Transformers	190	93	94	35	111	57	48	74	149	80	40	48
Triveni Turbine Ltd	-	-	243	206	249	174	281	305	306	132	153	207
Kalpataru Pwr Transm	616	336	343	403	568	274	265	351	486	347	310	337
KEC International	786	331	222	806	744	332	165	293	(140)	(88)	221	192
Jyoti Structures Ltd	350	261	221	138	314	173	119	134	222	163	146	139
Apar Industries Ltd	226	231	49	2	361	119	290	330	331	105	324	146
Finolex Cables Ltd	306	221	362	216	543	316	637	263	455	339	719	245
Sterlite Technologies	103	52	127	95	165	183	42	101	149	226	120	54

Source: Bloomberg.

Table 8: Revenue growth for equipment suppliers

% YoY

	CY11 2Q	CY11 3Q	CY11 4Q	CY12 1Q	CY12 2Q	CY12 3Q	CY12 4Q	CY13 1Q	CY13 2Q	CY13 3Q	CY13 4Q
ABB India Ltd	17.0	29.2	6.2	(0.3)	10.0	3.7	(5.3)	10.0	(7.5)	(1.3)	5.8
Alstom India Ltd	(19.9)	91.6	29.0	44.3	53.7	23.5	2.1	(1.0)	22.1	(20.2)	8.9
Schneider Electric Infra	-	-	-	-	-	-	1.8	4.4	(17.6)	1.1	0.5
Honeywell Autom India	3.9	13.7	32.1	17.1	10.8	(1.7)	(9.8)	(6.7)	12.2	6.9	(0.4)
Alstom T&D India Ltd	12.8	0.7	(48.5)	1.9	(32.4)	(35.3)	4.3	8.1	(13.3)	19.6	19.0
BHEL	10.2	24.2	19.1	6.6	16.1	0.2	(4.9)	(2.0)	(23.5)	(14.9)	(15.5)
TD Power Systems	-	-	-	-	-	(38.5)	(66.2)	(35.8)	(52.6)	(36.8)	28.0
Bharat Bijlee Ltd	8.6	(1.1)	(3.2)	7.9	(9.4)	(25.3)	(44.0)	(14.9)	1.0	(23.4)	37.0
Crompton Greaves	5.9	12.8	26.3	5.8	15.3	8.1	(1.9)	10.1	12.3	9.6	12.8
Havells India Ltd	11.8	23.4	23.4	24.0	29.0	13.2	17.8	11.6	1.5	21.8	11.9
Emco Ltd	58.5	(31.8)	(35.8)	(32.1)	(11.8)	(13.5)	(16.6)	(26.0)	(16.6)	7.9	10.5
Siemens Ltd	24.5	20.4	(5.6)	21.8	1.7	(7.6)	4.1	(22.2)	(7.1)	(3.4)	(4.1)
Voltamp Transformers	(21.1)	9.0	8.9	30.6	5.8	(18.2)	(10.6)	(10.1)	(6.7)	(11.6)	(15.9)
Triveni Turbine Ltd	-	-	-	-	-	(1.4)	19.7	33.5	(0.7)	(31.6)	(19.6)
Kalpataru Pwr Transm	8.7	(7.6)	1.0	21.4	19.6	22.5	11.1	(3.9)	27.2	34.6	18.2
KEC International	20.9	26.2	36.3	32.7	33.4	32.1	23.1	3.9	28.0	6.6	22.5
Jyoti Structures Ltd	13.0	16.5	6.5	1.9	2.7	(6.2)	5.5	27.6	8.6	9.5	6.9
Apar Industries Ltd	10.1	10.7	32.9	14.3	62.3	49.3	31.8	29.7	(15.4)	3.3	(5.1)
Finolex Cables Ltd	(6.6)	1.7	(2.6)	12.1	12.4	17.4	7.0	4.5	6.9	1.2	5.4
Sterlite Technologies	11.3	38.8	14.6	18.6	58.2	19.1	24.9	0.9	(12.4)	(23.7)	(18.0)

Source: Bloomberg.

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Table 9: PAT growth for equipment suppliers

% YoY

	CY11 2Q	CY11 3Q	CY11 4Q	CY12 1Q	CY12 2Q	CY12 3Q	CY12 4Q	CY13 1Q	CY13 2Q	CY13 3Q	CY13 4Q
ABB India Ltd	1.1	92.6	847.4	(20.0)	33.3	(3.6)	(73.8)	(10.7)	(21.9)	78.1	249.4
Alstom India Ltd	(80.0)	(22.8)	NM	62.6	104.4	90.9	NM	(4.7)	109.4	(49.0)	NM
Schneider Electric Infra	-	-	-	-	-	-	(64.2)	NM	NM	NM	NM
Honeywell Autom India	16.8	(39.4)	31.5	(47.9)	(55.8)	34.9	5.5	(7.7)	138.8	(34.0)	(19.2)
Alstom T&D India Ltd	(44.0)	(24.1)	(65.8)	57.8	27.5	NM	(67.4)	6.1	(34.6)	NM	92.3
BHEL	22.1	23.6	2.1	20.8	12.9	(9.7)	(17.5)	(4.2)	(49.5)	(64.2)	(41.2)
TD Power Systems	-	-	-	-	-	(49.1)	(68.3)	(32.3)	(64.3)	(62.1)	(97.5)
Bharat Bijlee Ltd	(76.0)	(60.8)	(44.1)	168.0	NM	NM	NM	(87.3)	NM	NM	NM
Crompton Greaves	(58.4)	(45.4)	(66.9)	(65.4)	8.1	(64.0)	NM	(74.8)	(30.1)	38.9	NM
Havells India Ltd	8.0	19.9	29.1	32.6	39.0	23.8	20.0	19.8	18.2	44.6	28.3
Emco Ltd	NM	NM	(74.3)	(36.7)	(54.7)	(58.3)	(63.4)	(84.5)	(9.6)	419.0	92.5
Siemens Ltd	(0.9)	(33.3)	(71.0)	9.5	(76.5)	(62.0)	(10.0)	(90.1)	NM	62.9	2.3
Voltamp Transformers	(13.3)	0.9	(72.3)	(41.7)	(38.5)	(48.5)	109.4	35.0	39.5	(18.1)	(34.9)
Triveni Turbine Ltd	-	-	-	-	-	15.8	48.2	22.8	(24.4)	(45.6)	(32.0)
Kalpataru Pwr Transm	(8.8)	(17.2)	(20.6)	(7.8)	(18.6)	(22.5)	(12.8)	(14.3)	26.8	16.8	(4.1)
KEC International	25.4	(56.7)	39.0	(5.3)	0.3	(25.7)	(63.6)	NM	NM	34.0	(34.7)
Jyoti Structures Ltd	(0.7)	(10.9)	(44.2)	(10.3)	(33.7)	(46.0)	(2.9)	(29.3)	(5.8)	22.5	3.6
Apar Industries Ltd	(3.8)	(85.8)	(99.2)	59.3	(48.4)	492.6	15,751.0	(8.2)	(12.0)	11.8	(55.7)
Finolex Cables Ltd	(16.1)	16.7	(34.6)	77.1	42.6	76.0	21.8	(16.2)	7.5	12.9	(7.0)
Sterlite Technologies	(90.6)	(78.0)	(44.6)	60.0	250.5	(66.7)	6.3	(9.9)	23.3	185.7	(46.2)

Source: Bloomberg

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**Companies Discussed in This Report** (all prices in this report as of market close on 20 February 2014)

ABB Ltd (ABB.BO/Rs681.45/Underweight), Bharat Heavy Electricals (BHEL) (BHEL.BO/Rs150.95/Underweight), Crompton Greaves Limited (CROM.BO/Rs121.65/Neutral), Siemens India (SIEM.BO/Rs584.90/Underweight)

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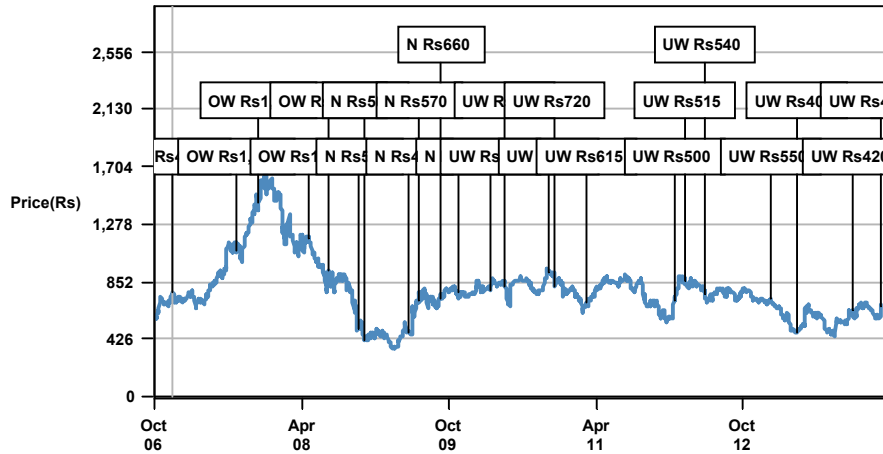


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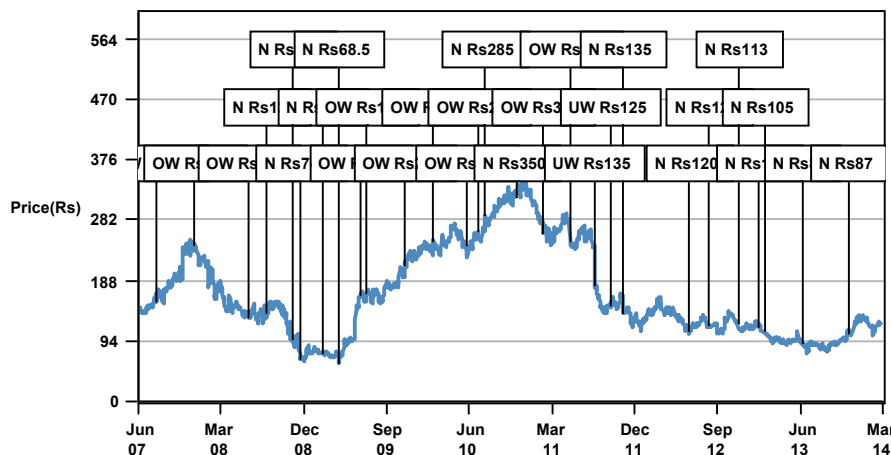
ABB Ltd (ABB.BO, ABB IN) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Break in coverage Sep 24, 2002 - Dec 07, 2006.

Date	Rating	Share Price (Rs)	Price Target (Rs)
24-Sep-02	N	584.71	--
07-Dec-06	OW	777.53	4300.00
30-Jul-07	OW	1077.50	1190.00
26-Oct-07	OW	1436.70	1655.00
27-Apr-08	OW	1170.95	1400.00
09-Jul-08	OW	928.55	1000.00
26-Oct-08	N	500.40	585.00
20-Nov-08	N	420.05	500.00
03-May-09	N	473.10	460.00
05-Jun-09	N	708.00	570.00
26-Aug-09	N	730.45	660.00
03-Nov-09	N	769.55	700.00
01-Mar-10	UW	782.50	660.00
28-Apr-10	UW	809.40	700.00
06-Oct-10	UW	923.70	765.00
30-Oct-10	UW	822.20	720.00
24-Feb-11	UW	695.15	615.00
17-Jan-12	UW	705.60	500.00
24-Feb-12	UW	864.05	515.00
10-May-12	UW	749.50	540.00
07-Jan-13	UW	725.70	550.00
12-Apr-13	UW	475.00	400.00
07-Nov-13	UW	644.70	420.00
18-Feb-14	UW	667.25	415.00

Crompton Greaves Limited (CROM.BO, CRG IN) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Jul 30, 2007.

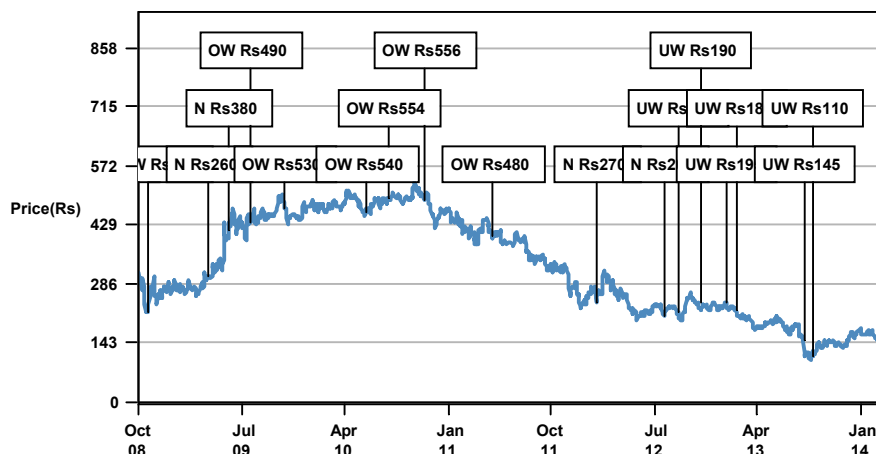
Date	Rating	Share Price (Rs)	Price Target (Rs)
30-Jul-07	OW	156.14	196.00
05-Dec-07	OW	243.11	285.00
29-May-08	OW	131.17	165.00
30-Jul-08	N	136.80	122.00
23-Oct-08	N	96.43	125.00
20-Nov-08	N	65.54	74.20
28-Jan-09	N	75.23	85.70
25-Mar-09	N	60.66	68.50
05-Jun-09	OW	164.57	171.00
25-Jun-09	OW	166.89	191.00
30-Oct-09	OW	211.66	234.00
01-Feb-10	OW	247.97	254.00
19-May-10	OW	243.30	275.00
29-Jun-10	OW	265.05	285.00
22-Jul-10	N	289.50	285.00
01-Nov-10	N	317.95	350.00
01-Feb-11	OW	262.65	345.00
01-May-11	OW	250.40	300.00
21-Jul-11	UW	181.25	135.00
09-Sep-11	UW	150.95	125.00
21-Oct-11	N	137.85	135.00
28-May-12	N	109.70	120.00
30-Jul-12	N	117.50	125.00
05-Nov-12	N	122.80	113.00
14-Jan-13	N	116.00	118.00
30-Jan-13	N	107.95	105.00
07-Jun-13	N	91.65	85.00
10-Nov-13	N	105.65	87.00

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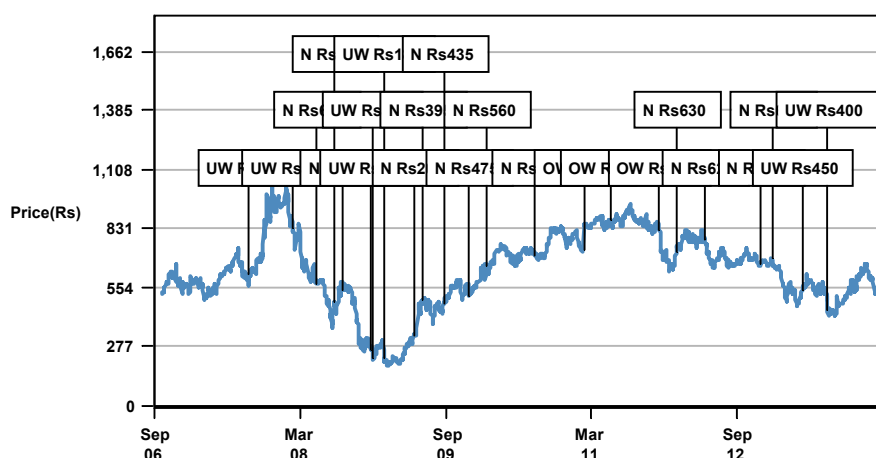
**Bharat Heavy Electricals (BHEL) (BHEL.BO, BHEL IN) Price Chart**



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Oct 26, 2008.

Date	Rating	Share Price (Rs)	Price Target (Rs)
26-Oct-08	OW	215.97	280.00
05-Apr-09	N	306.24	260.00
28-May-09	N	416.57	380.00
24-Jul-09	OW	433.64	490.00
25-Oct-09	OW	469.03	530.00
27-May-10	OW	459.27	540.00
26-Jul-10	OW	494.27	554.00
31-Oct-10	OW	489.11	556.00
29-Apr-11	OW	403.11	480.00
30-Jan-12	N	244.15	270.00
27-Jul-12	N	207.80	200.00
03-Sep-12	UW	216.15	185.00
30-Oct-12	UW	242.45	190.00
08-Jan-13	UW	239.80	195.00
03-Feb-13	UW	225.00	180.00
04-Aug-13	UW	149.60	145.00
27-Aug-13	UW	111.25	110.00

**Siemens India (SIEM.BO, SIEM IN) Price Chart**



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Aug 23, 2007.

Date	Rating	Share Price (Rs)	Price Target (Rs)
23-Aug-07	UW	615.65	483.00
31-Jan-08	UW	836.88	775.00
29-Apr-08	N	575.25	660.00
09-Jul-08	N	483.35	525.00
08-Aug-08	N	544.95	550.00
20-Nov-08	UW	265.80	260.00
27-Nov-08	UW	223.70	190.00
15-Jan-09	UW	226.40	188.00
05-May-09	N	326.70	260.00
05-Jun-09	N	499.45	395.00
26-Aug-09	N	482.40	435.00
28-Nov-09	N	520.40	475.00
01-Feb-10	N	657.80	560.00
30-Jul-10	N	699.45	695.00
31-Jan-11	OW	728.00	870.00
13-May-11	OW	872.70	950.00
11-Nov-11	OW	829.35	940.00
17-Jan-12	N	722.80	630.00
30-Apr-12	N	774.65	620.00
26-Nov-12	N	665.85	575.00
07-Jan-13	N	691.90	605.00
02-May-13	UW	541.15	450.00
04-Aug-13	UW	451.35	400.00

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