J.P.Morgan

Sterlite Industries

Coming out of a 'Perfect Storm', better times ahead? We believe so

- FY11, a year of disappointments for STLT...: Operational issues (zinc segment impacted by acute water crisis), regulatory issues (non approval of bauxite mine, copper smelter court case, alumina refinery expansion not approved, BALCO arbitration against STLT, Anglo Zinc acquisition not being done via HZL), teething problems with the 2400MW power project (instead of earlier expectation 2 units entering into commercial production by end March-11, we now expect only 1 unit to flow into P&L in FY11) and continued investor fears of STLT's cash support to associate VAL being higher than its stake of 29.5%, have all contributed to the massive underperformance in 2010 (STLT -14% v/s +18% for NIFTY and +54% for HNDL). We do not view the arbitration panel judgment as very negative for STLT.
- ...Operationally, zinc improvement, power project stabilization over next 4 qrtrs to continue aiding earnings growth: We expect refined zinc production to pick up current levels of 178KT/qrtr to +200KT/qrtr as the water problems are now resolved. The Anglo zinc assets acquisition should start flowing through (Skorpion mine EBITDA at \$14mn at 13KT prod for Dec-10) with the remaining 2 mines' potential acquisition over the next 2 qrtr likely. We estimate an EBITDA of \$383mn from all 3 mines in FY12. The power project stabilization, which admittedly has been delayed significantly, should also start contributing from the Sept qrtr as by then 2 units of 600MW each should have started commercial production.
- Coal an increasingly big headache for STLT, not much improvement expected in aluminum: We have been surprised by STLT's lack of focus on coal acquisitions, given our view that domestic coal availability is only going to become tighter and STLT growth projects in power could be increasingly short of coal. A large part of the analyst conf call was devoted to coal issues. In this regard, we believe captive coal mine development in BALCO would be critical. We do not expect any material improvement in the aluminum segment given a) bauxite sourcing issues, and b) surge in imported alumina prices.
- Maintain OW, increase PT to Rs225: We value STLT on 6x FY13E EV/EBITDA and revise our March-12 PT to Rs225 (Rs205 earlier), implying 25% upside from current levels. Key risks are a) continued delays in ramp up of power capacities; b) non receipt of linkage coal and c) sharp correction in Zn.

Sterlite (Bloomberg: STLT IN; Reuters: STRL.BO)

Sterrite (Dioornberg. STET IIV, No	ulcis. STRL.D	0)				
Rs in millions, year-end March	FY10	FY11E	FY12E	FY13E	52-wk range (Rs)	223 - 148.8
Net sales	244,103	289,506	405,029	433,583	Mkt cap. (Rs MM)	601,733
Net profit (pre-exceptional)	37,437	46,446	72,333	81,309	Mkt cap. (US\$ MM)	13,165
EPS (pre-exceptional) (Rs)	11.6	13.5	21.0	23.6	Avg. daily volume (MM)	6.5
ROE (%)	12%	12%	17%	18%	Average daily value (US\$ MM)	25.1
P/E (x)	15.5	13.3	8.5	7.6	Shares O/S (MM)	3361
EV/EBITDA (x)	12.0	10.7	5.8	4.6	Index (BSE Sensex)	18,969
P/BV (x)	1.6	1.5	1.4	1.3	Exchange rate	45.7

Source: Company reports, Bloomberg, J.P. Morgan estimates. Priced as of January 25, 2011.

Overweight

STRL.BO, STLT IN Price: Rs179.05

Price Target: Rs225.00
Previous: Rs205.00

India Metals

Pinakin Parekh, CFA^{AC}

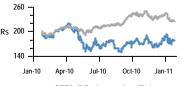
(91-22) 6157-3588 pinakin.m.parekh@jpmorgan.com

Neha Manpuria

(91-22) 6157-3589 neha.x.manpuria@jpmorgan.com

J.P. Morgan India Private Limited

Price Performance



STRL.BO share price (Rs BSE30 (rebased)

	YTD	1m	3m	12m
Abs	-6.9%	-3.2%	3.8%	-10.8%
Rel	0.8%	2.3%	10.4%	-23.8%

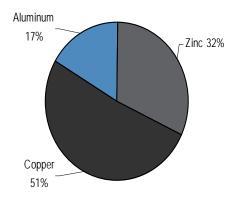
See page 9 for analyst certification and important disclosures, including non-US analyst disclosures.

J.P. Morgan does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Company description

Sterlite Industries is one of the largest diversified non-ferrous metal companies in India with operations in aluminum copper and zinc. It is a subsidiary of Vedanta Group, a London-based company controlled by Anil Agarwal. The company is also expanding into the commercial power generation sector to leverage on its experience of operating captive power plants. Sterlite has significant size and scale in all the base metals. It is the third-largest aluminum company in India, second-largest in copper and the largest in zinc.

Figure 1: Sterlite—Revenue customer chart



Source: Company reports.

Rs	J.P. Morgan	Consensus
FY11E	13.5	14.0
FY12E	21.0	21.5
FY13E	23.6	22.9

Table 1: Sterlite—P&L sensitivity metrics

	EBITDA	EPS
	impact (%)	impact (%)
Aluminum realization assumption		
Impact of each 1%	0.4%	0.8%
Zinc realization growth assumption		
Impact of each 1%	0.9%	0.9%
Copper realization assumption		
Impact of each 1%	0.1%	0.1%
Power costs assumption		
Impact of each 5%	1.4%	1.6%

Source: J.P. Morgan estimates.

Price target and valuation analysis

We remain OW on the stock with a revised PT of Rs225 based on 6x FY13E EV/EBITDA. We reduce our multiple to 6x from 6.3x to account for STLT increasing coal exposure, as we expect STLT to potentially have to source more coal from the open market. PT revised as we roll forward our target date from Sep-11 previously to Mar-12 (PT based on FY13E).

Key risks are a) continued delays in ramp up of power capacities; b) non receipt of linkage coal and c) sharp correction in Zn.

Update on key issues

Power projects: STLT is in the process of stabilization of the 2nd unit of 600MW and expects the 1st unit to start flowing through the P&L in the current quarter. The 1st unit had a trial production of 245mn units in the Dec quarter. Regarding BALCO's 1200MW power plant (300 X 4), STLT said work is on track, and expects to deliver the 1st unit of 300MW in one quarter's time. Regarding coal sourcing, management expects linkage coal delivery to be in sync with requirements, though there would be need of open market purchases.

JPM view: We expect the 1st of 600MW to partially flow through the P&L in the March quarter and fully in the June quarter, and the 2nd unit of 600MW to flow through in the Sept quarter. We expect coal costs for the company to remain elevated, given our view that Coal India is likely to face continued coal production/evacuation issues and hence STLT's coal costs for the power projects is likely to spike up.

Zinc, Anglo Zinc acquisition: STLT expects zinc production to pick up as the water issues are now resolved. The Skorpion mine contributed \$13mn to EBITDA in the Dec month. We expect refined zinc production to hit +200KT from current levels of 178KT and expect the remaining 2 Anglo Zinc acquisitions to also be completed over the next 2 quarters.

Aluminum likely to remain weak given bauxite, alumina issues: With Lanjigarh not producing at rated capacity given bauxite sourcing issues, aluminum CoP is likely to remain at elevated levels across BALCO and VAL.

Regulatory update- BALCO arbitration panel rules in favor of Govt: The BALCO arbitration panel, late last night, has ruled in favor of the Govt. We believe this would also apply to Hindustan Zinc call option. While we were not building in any upside on this front, sentiment wise it is negative for STLT and likely could result in a re-start of the legal process.

Investment view- Remain OW, would use weakness to build position

We remain OW on the stock with a revised PT of Rs225 based on 6x FY13E EV/EBITDA We reduce our multiple to 6x from 6.3x to account for STLT increasing coal exposure, as we expect STLT to potentially have to source more coal from the open market. We cut our FY11E estimates by 17%, but maintain our FY12E estimates. Key risks are a) continued delays in ramp up of power capacities; b) non receipt of linkage coal and c) sharp correction in Zn.

	3QFY10	2QFY11	3QFY11	% y/y	% q/q	Comments
Zinc and Lead					11	
Production (in Kt, except for silver)						
Mined Metal	200	205	222	11%	8%	
Refined Metal						210kt Dariba smelter contributed 46.5kt in Q3. Lead
	1/0	100	100	1.40/	10/	prodn lower due to planned maintenance shutdown at
Silver (in 000/o Kgo)	169	192	193	14%	1%	the Ausmelt and Pyro smelters
Silver (in 000's Kgs)	43	44	42	-2%	-5%	Silver prodn lower q/q
Revenue (Rs Mn)						Sales augmented by sales of surplus zinc and lead
Neverlae (NS Will)	22,030	21,460	25,890	18%	21%	concentrate
EBITDA (Rs Mn)	,,	,	/			Increased volume, higher LME prices and operational
, ,						efficiencies. Skorpion prodn in Dec-10 13.2kt and
	13,700	11,020	14,970	9%	36%	EBITDA of Rs620MM
CoP with Royalty (\$/MT)						Impacted by higher coal costs and higher stripping
7 (+ /1 + 7)	907	977	989	9%	1%	costs at mines
Zinc LME (\$/MT)						Company indicated 100KT lead smelter on course for
	2 211	2 012))1E	E0/	15%	Q4FY11E commissioning; Exit prodn capacity of
	2,211	2,013	2,315	5%_	15%	500KT silver by FY12E
Copper Draduction (in Kt)	3QFY10	2QFY11	3QFY11	% y/y	% q/q	Comments
Production (in Kt) Mined Metal	4	7	4	0%	-43%	
Cathode	05		70	70/	4.07	Production impacted due to a temporary shutdown
	85	68	79	-7%	16%	following HC order at the end-Sept 2010
Revenue (Rs Mn)	35,480	30,230	46,260	30%	53%	
EBITDA (Rs Mn)	1,850	2,090	2,250	22%	8%	
Gross CoP – cathode (¢/ lb)	1,000	2,070	2,200	2270	070	Higher sulphuric acid realisation and improved
cross ser saureae (v. 12)	10.37	19.78	1.24	-88%	-94%	operational efficiency
Tc/Rc (c/ lb)	15	12	11	-24%	-5%	
LME (\$/MT)						400Kt expansion put on hold rescheduled awaiting
	6,667	7,344	8,674	30%	18%	consent from HC
Aluminium	3QFY10	2QFY11	3QFY11	% y/y	% q/q	Comments
Production (in Kt)	301110	201111	301111	70 y/y	70 4 74	Comments
BALCO	65	65	65	0%	0%	Production was higher than rated capacity
VAL	65	97	103	58%	6%	Commissioning of pots helped increase prod
Revenue (Rs Mn)	7,180	7,180	8,020	12%	12%	
EBITDA (Rs Mn)	1,120	1,440	1,580	41%	10%	
CoP (\$/MT)		47.40	4705	201	201	Higher LME prices offset by increased cost of alumina
LAME (AMAT)	1667	1748	1795	8%	3%	coal & carbon
LME (\$/MT)						BALCO & 1.25MT VAL+Lanjigarh expansion deferred for the next 12-24months. 1200MW BALCO CPP to b
	2,003	2,089	2,343	17%	12%	sold on spot basis.
	2,000	2,007	L,UTJ	1770	12 /0	Sold oil Spot busis.
Power	3QFY10	2QFY11	3QFY11	% y/y	% q/q	Comments
Wheeled (Mn units)						2400 MW plant sold 245MM units as part of trial run
	388	414	454	17%	10%	prod
Develope (De Mar)	0.000	1 400	1 000	000/	4.01	
Revenue (Rs Mn)	2,000	1,430	1,230	-39% 70%	-14%	
EBITDA (Rs Mn) CoP (Rs/MT)	1,240 1.73	740 1.75	370 1.82	-70% 5%	-50% 4%	
Realization (Rs/MT)	1./3	1.75	1.02	570	4 /0	Low demand by utility companies and addition in new
Nounzation (Namm)	5.16	3.45	2.72	-47%	-21%	power generating capacity
	0.10	3.10		17.73	2170	2400MW PP: First 600MW unit is operational (in
						process of stabilization) and 2nd unit synchronized in
						Dec-10. Decided to add 150MW wind power capacity
						in 2 phases to be completed by 4QFY11 and 2QFY12

Source: Company reports and J.P. Morgan estimates.

Figure 2: Sterlite EV/EBITDA band



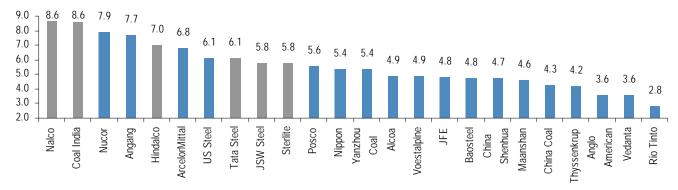
Source: Company reports, Bloomberg and J.P. Morgan estimates.

Figure 3: Sterlite P/BV band



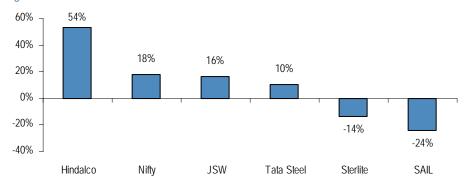
Source: Company reports, Bloomberg and J.P. Morgan estimates.

Figure 4: FY12E EV/RBITDA



Source: Company reports and J.P. Morgan estimates.

Figure 5: 2010 Stock Performances



Source: Bloomberg.

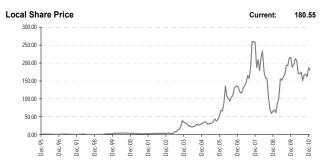
Sterlite Industries: Summary of financials

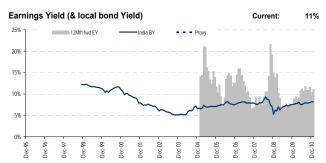
Profit and Loss statement					Cash flow statement				
Rs in millions, year-end Mar	FY10	FY11E	FY12E	FY13E	Rs in millions,	FY10	FY11E	FY12E	FY13E
Revenues	244,103	289,506	405,029	433,583	Net Income	57,060	60,277	99,146	111,459
% change Y/Y	15%	19%	40%	7%	Add: Depreciation	7,498	13,652	15,362	17,350
EBITDA	60,718	72,733	133,171	150,372	Workg. Cap change	(73,157)	67,382	8,186	772
% change Y/Y	29%	20%	83%	13%	Operational CF	(8,599)	141,311	122,694	129,581
EBITDA Margin (%)	25%	25%	33%	35%		(-,,	,,,	,	,,,,,
EBIT	53,220	59,081	117,809	133,022	Net Capex	(68,894)	10,885	(87,020)	(10,019)
% change Y/Y	33%	11%	99%	13%	Free cash flow	(77,493)	152,195	35,674	119,563
EBIT Margin (%)	22%	20%	29%	31%	1100 0001111011	(,,,,,,,,	102/170	00/07.	,000
Net Interest	3,424	7,535	8,548	10,593	Equity	60,021	(22,159)	(67,649)	(55,748)
Earnings before tax	69,390	75,468	126,761	143,929	Debt raised/ (repaid)	22,465	3,510	(4,167)	(4,167)
% change Y/Y	20%	9%	68%	14%	Dividends paid	(3,093)	(4,325)	(4,325)	(4,325)
Tax	12,330	15,191	27,614	32,470	Beginning cash	55,048	33,378	126,691	100,109
as % of EBT	18%	20%	22%	23%	Ending cash	33,378	126,691	100,109	172,416
Net Income (Pre Exceptional)	37,437	46,446	72,333	81,309	DPS	0.77	1.10	1.10	1,10
% change Y/Y	1%	24%	56%	12%	Ы 3	0.77	1.10	1.10	1.10
Shares Outstanding	3,236	3,449	3,449	3,449					
EPS (pre exceptional)	3,230 11.6	13.5	21.0	23.6					
% change Y/Y	-78%	16%	56%	12%					
% change 1/1	-78%	10%	30%	12%					
Balance sheet					Ratio Analysis				
Rs in millions, year-end Mar	FY10	FY11E	FY12E	FY13E	%, year-end Mar	FY10	FY11E	FY12E	FY13E
Inventories	29,823	36,290	38,899	38,662	EBITDA margin	24%	25%	33%	35%
Debtors	6,235	14,485	18,650	18,154	Operating margin	22%	20%	29%	31%
Cash and bank balances	33,378	126,691	100,109	172,416	Net profit margin	15%	16%	18%	19%
Other Current Assets	0	0	0	0	Net profit margin	1370	1070	1070	1770
Loans and advances	106,200	46,953	46,953	46,953	Sales growth	15%	19%	40%	7%
Loans and advances	100,200	40,733	40,733	40,733	Net profit growth	1%	24%	56%	12%
Investments	203,045	240.879	242,879	244,879	EPS growth	-78%	16%	56%	12%
Net fixed assets	122,656	140,438	244,889	244,679	LF3 growin	-7070	1070	3076	1270
Total assets	611,659	674,263	728,113	794,354	Interest coverage (v)				
Total assets	011,009	074,203	128,113	794,354	Interest coverage (x) Net debt/total capital	14%	-8%	-2%	-21%
Liabilities					Net debt to equity	16%	-0 <i>%</i> -8%	-2%	-21% -18%
	11,152	17,729	24,989	25,027	Sales/assets	46%	-o <i>%</i> 45%	-2% 58%	57%
Sundry Creditors								1.7	1.7
Others Total current liabilities	11,212 49,319	54,964	62,664	62,664	Assets/equity (x) ROE	1.7 12%	1.7 12%	1.7 17%	1.7 18%
		72,693	87,653	87,691					
Total debt	92,600	96,110	91,943	87,775	ROCE	15%	14%	21%	22%
Other liabilities	84,096	89,327	105,212	124,196					
Total liabilities	241,539	270,350	297,028	311,883					
Shareholders' equity	370,120	403,913	431,085	482,471					
BVPS	114.4	117.1	125.0	139.9					

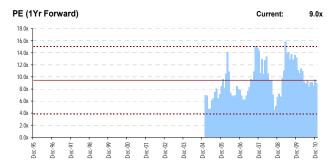
Source: Company reports, Bloomberg, J.P. Morgan estimates

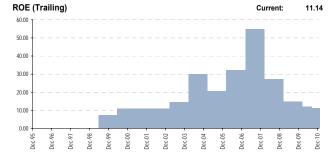


JPM Q-Profile Sterlite Industries (India) Ltd. (INDIA / Materials) As 0f: 21-Jan-2011

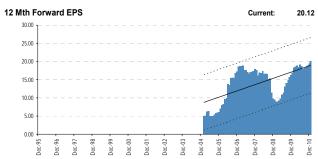




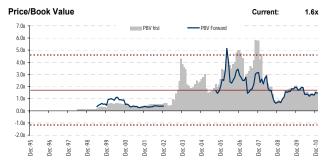


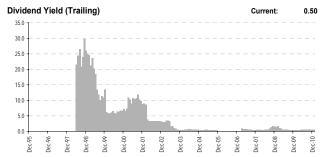












Summary

Sterlite Industries (India) Ltd.									As Of:		21-Jan-11
INDIA	SEDOL	B13TC37						ı	Local Price:		180.55
Materials								1	EPS:		20.12
	Latest	Min	Max	Median	Average	2 S.D.+	2 S.D	% to Min	% to Max	% to Med	% to Avg
12mth Forward PE	8.98x	4.61	15.83	9.15	9.45	15.07	3.82	-49%	76%	2%	5%
P/BV (Trailing)	1.55x	0.11	5.81	1.51	1.70	4.58	-1.18	-93%	274%	-3%	10%
Dividend Yield (Trailing)	0.50	0.00	29.80	0.69	4.52	18.20	-9.16	-100%	5832%	38%	800%
ROE (Trailing)	11.14	7.39	54.97	14.78	20.74	47.20	-5.72	-34%	393%	33%	86%
Implied Value of Growth	15.3%	-0.75	0.48	0.15	0.07	0.68	-0.53	-588%	216%	0%	-52%

Source: Bloomberg, Reuters Global Fundamentals, IBES CONSENSUS, J.P. Morgan Calcs

^{*} Implied Value Of Growth = (1 - EY/Cost of equity) where cost of equity =Bond Yield + 5.0% (ERP)

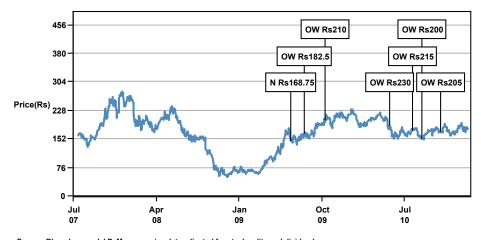
Analyst Certification:

The research analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report.

Important Disclosures

- Lead or Co-manager: J.P. Morgan acted as lead or co-manager in a public offering of equity and/or debt securities for Sterlite Industries within the past 12 months.
- Client of the Firm: Sterlite Industries is or was in the past 12 months a client of JPM; during the past 12 months, JPM provided to the company investment banking services and non-investment banking securities-related service.
- Investment Banking (past 12 months): J.P. Morgan received, in the past 12 months, compensation for investment banking services from Sterlite Industries.
- Investment Banking (next 3 months): J.P. Morgan expects to receive, or intends to seek, compensation for investment banking services in the next three months from Sterlite Industries.
- Non-Investment Banking Compensation: JPMS has received compensation in the past 12 months for products or services other
 than investment banking from Sterlite Industries. An affiliate of JPMS has received compensation in the past 12 months for products
 or services other than investment banking from Sterlite Industries.

Sterlite Industries (STRL.BO) Price Chart



Date	Rating	Share Price (Rs)	Price Target (Rs)
18-Jun-09	N	147.23	168.75
03-Aug-09	OW	167.68	182.50
11-Oct-09	OW	202.26	210.00
10-May-10	OW	188.94	230.00
27-Jul-10	OW	173.85	215.00
25-Aug-10	OW	152.15	200.00
27-Oct-10	OW	172.55	205.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage Jun 18, 2009. This chart shows J.P. Morgan's continuing coverage of this stock; the current analyst may or may not have covered it over the entire period.

J.P. Morgan ratings: OW = Overweight, N = Neutral, UW = Underweight.

$\textbf{Explanation of Equity Research Ratings and Analyst} (s) \ Coverage \ Universe:$

J.P. Morgan uses the following rating system: **Overweight** [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] **Neutral** [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] **Underweight** [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] J.P. Morgan Cazenove's UK Small/Mid-Cap dedicated research analysts use the same rating categories; however, each stock's expected total return is compared to the expected total return of the FTSE All Share Index, not to those analysts' coverage universe. A list of these analysts is available on request. The analyst or analyst's team's coverage universe is the sector and/or country shown on the cover of each publication. See below for the specific stocks in the certifying analyst(s) coverage universe.

Coverage Universe: **Pinakin Parekh**, **CFA:** ACC Limited (ACC.BO), Ambuja Cements Limited (ABUJ.BO), Coal India (COAL.BO), Grasim Industries Ltd (GRAS.BO), Hindalco Industries (HALC.BO), JSW Steel (JSTL.BO), National



Aluminium Co Ltd (NALU.BO), Steel Authority of India Ltd (SAIL.BO), Sterlite Industries (STRL.BO), Tata Steel Ltd (TISC.BO), UltraTech Cement Ltd (ULTC.BO)

J.P. Morgan Equity Research Ratings Distribution, as of December 31, 2010

	Overweight	Neutral	Underweight
	(buy)	(hold)	(sell)
J.P. Morgan Global Equity Research Coverage	46%	42%	12%
IB clients*	53%	50%	38%
JPMS Equity Research Coverage	43%	49%	8%
IB clients*	71%	63%	59%

^{*}Percentage of investment banking clients in each rating category.

For purposes only of FINRA/NYSE ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category.

Valuation and Risks: Please see the most recent company-specific research report for an analysis of valuation methodology and risks on any securities recommended herein. Research is available at http://www.morganmarkets.com, or you can contact the analyst named on the front of this note or your J.P. Morgan representative.

Analysts' Compensation: The equity research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues, which include revenues from, among other business units, Institutional Equities and Investment Banking.

Registration of non-US Analysts: Unless otherwise noted, the non-US analysts listed on the front of this report are employees of non-US affiliates of JPMS, are not registered/qualified as research analysts under FINRA/NYSE rules, may not be associated persons of JPMS, and may not be subject to FINRA Rule 2711 and NYSE Rule 472 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

Other Disclosures

J.P. Morgan ("JPM") is the global brand name for J.P. Morgan Securities LLC ("JPMS") and its affiliates worldwide. J.P. Morgan Cazenove is a marketing name for the U.K. investment banking businesses and EMEA cash equities and equity research businesses of JPMorgan Chase & Co. and its subsidiaries.

Options related research: If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your J.P. Morgan Representative or visit the OCC's website at http://www.optionsclearing.com/publications/risks/riskstoc.pdf.

Legal Entities Disclosures

U.S.: JPMS is a member of NYSE, FINRA and SIPC. J.P. Morgan Futures Inc. is a member of the NFA. JPMorgan Chase Bank, N.A. is a member of FDIC and is authorized and regulated in the UK by the Financial Services Authority. U.K.: J.P. Morgan Securities Ltd. (JPMSL) is a member of the London Stock Exchange and is authorized and regulated by the Financial Services Authority. Registered in England & Wales No. 2711006. Registered Office 125 London Wall, London EC2Y 5AJ. South Africa: J.P. Morgan Equities Limited is a member of the Johannesburg Securities Exchange and is regulated by the FSB. Hong Kong: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong. Korea: J.P. Morgan Securities (Far East) Ltd, Seoul Branch, is regulated by the Korea Financial Supervisory Service. Australia: J.P. Morgan Australia Limited (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (ABN 61 003 245 234/AFS Licence No: 238066) is a Market Participant with the ASX and regulated by ASIC. Taiwan: J.P.Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. India: J.P. Morgan India Private Limited, having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz East, Mumbai - 400098, is a member of the National Stock Exchange of India Limited (SEBI Registration Number - INB 230675231/INF 230675231/INE 230675231) and Bombay Stock Exchange Limited (SEBI Registration Number - INB010675237/INB010675237) and is regulated by Securities and Exchange Board of India. Thailand: JPMorgan Securities (Thailand) Limited is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. Indonesia: PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the BAPEPAM LK. Philippines: J.P. Morgan Securities Philippines Inc. is a member of the Philippine Stock Exchange and is regulated by the Securities and Exchange Commission. Brazil: Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Mexico: J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. Singapore: This material is issued and distributed in Singapore by J.P. Morgan Securities Singapore Private Limited (JPMSS) [MICA (P) 025/01/2011 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore

(MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission in Malaysia. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Saudi Arabia:** J.P. Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA) to carry out dealing as an agent, arranging, advising and custody, with respect to securities business under licence number 35-07079 and its registered address is at 8th Floor, Al-Faisaliyah Tower, King Fahad Road, P.O. Box 51907, Riyadh 11553, Kingdom of Saudi Arabia. **Dubai:** JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - Building 3, Level 7, PO Box 506551, Dubai, UAE.

Country and Region Specific Disclosures

U.K. and European Economic Area (EEA): Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by JPMSL. Investment research issued by JPMSL has been prepared in accordance with JPMSL's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require a firm to establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. Australia: This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. JPMSAL does not issue or distribute this material to "retail clients." The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. Germany: This material is distributed in Germany by J.P. Morgan Securities Ltd., Frankfurt Branch and J.P.Morgan Chase Bank, N.A., Frankfurt Branch which are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. Hong Kong: The 1% ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months' prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider/market maker for derivative warrants, callable bull bear contracts and stock options listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk. Japan: There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan. Korea: This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul Branch. Singapore: JPMSS and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Important Disclosures section above. India: For private circulation only, not for sale. Pakistan: For private circulation only, not for sale. New Zealand: This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. Canada: The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offence. **Dubai:** This report has been issued to persons regarded as professional clients as defined under the DFSA rules.

General: Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein. JPMS distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other

Asia Pacific Equity Research 26 January 2011

Pinakin Parekh, CFA (91-22) 6157-3588 pinakin.m.parekh@jpmorgan.com



publicly available information. Clients should contact analysts and execute transactions through a J.P. Morgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised January 8, 2011.

Copyright 2011 JPMorgan Chase & Co. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.