potential upside

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#### Cut PO by 19% and earnings by 4-10%; retain Buy

PO cut by 19%; Still 58%

We have cut the price objective (PO) of Reliance Industries (RIL) by 19% from Rs2,367/share to Rs1,927/share (58% potential upside). The cut is due to change in valuation methodology (EV/EBITDA from DCF) and cut in FY10E refining and petrochemical margins. The margin cut has also meant cut in RIL's FY09-FY11E earnings by 4-10%. Despite the earnings cut. 2-year EPS CAGR to FY10E is 33% (40% earlier). RIL is attractively trading 6.6x FY10E. We retain Buy on RIL

#### 33% 2-year EPS CAGR to FY10E; 72% YoY EPS rise in FY10E

RIL and RPL's FY09-FY10E refining margin forecast has been cut by 8-15% in line with 7-18% cut in Singapore refining margins. RPL is now assumed to start commercial operations from FY10E (April 2009) and not 4Q FY09 (January 2009). Petrochemical margins are raised in FY09E (y-t-d are higher) but cut for FY10E. A 2-3% weaker rupee is assumed boosting earnings. The net impact is cut in FY09E EPS by 7% and FY10E by 10%. FY10E EBIT from RIL's refinery and petrochemicals is half of FY08 level at US\$2.2bn. However, US\$5.5bn from D6 oil, gas and RPL will still mean 72% YoY EPS rise and 33% 2-year EPS CAGR to FY10E. This report discusses RIL's EPS sensitivity to key variables in detail.

#### Refining & petrochemicals on EV/EBITDA; cut by 26-42%

We are now valuing RIL's refining, petrochemical businesses and value of its 70% stake in RPL on 6-8x FY10E EV/EBITDA. This has meant 26-42% cut in valuation of these businesses and stake in RPL. Earlier valuation was on DCF basis and hence it reflected two petrochemical projects expected to start in 3-4 years. Now these projects are not valued. EV/EBITDA multiples used are higher than used for peers to reflect superior assets and earnings track record of RIL.

#### Estimates (Mar)

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(Rs)	2007A	2008A	2009E	2010E	2011E
Net Income (Adjusted - mn)	125,476	153,244	168,534	291,512	300,353
EPS	86.34	105.44	107.12	185.28	190.90
EPS Change (YoY)	26.6%	22.1%	1.6%	73.0%	3.0%
Dividend / Share	9.91	11.00	12.00	15.00	15.00
Free Cash Flow / Share	(105.18)	(68.52)	7.36	108.70	132.88
GDR EPS (US\$)	3.82	5.24	4.49	7.76	8.00
GDR Dividend / Share (US\$)	0.438	0.546	0.503	0.628	0.628

#### Valuation (Mar)

	2007A	2008A	2009E	2010E	2011E
P/E	14.14x	11.58x	11.40x	6.59x	6.39x
Dividend Yield	0.812%	0.901%	0.983%	1.23%	1.23%
EV / EBITDA*	11.77x	10.47x	9.56x	5.67x	5.36x
Free Cash Flow Yield*	-7.96%	-5.18%	0.603%	8.90%	10.89%

<sup>\*</sup> For full definitions of  $iQmethod^{s_M}$  measures, see page 17

#### Stock Data

Rs1,221 / US\$48.40
Rs2,367 to Rs1,927/
US\$121.38 to US\$98.82
10-Nov-2008 / 10-Nov-
2008
B-1-7 / B-1-7
MEDIUM / MEDIUM
Rs930.00-Rs3,298
US\$40,304
1,573.4 / 786.7
9,373,681
XRELF / BSE
RLNIY / LIN
RIL IN / RELI.BO
16.8%
52.3%
0.2% / 0.1%
45.0%



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<sup>&</sup>gt;> Employed by a non-US affiliate of MLPF&S and is not registered/qualified as a research analyst under the NYSE/NASD rules.

## *iQprofile*<sup>™</sup> Reliance Industries Ltd.

Key Income Statement Data (Mar)	2007A	2008A	2009E	2010E	2011E
(Rs Millions)	200771				
Sales	1,137,701	1,371,467	1,538,349	2,331,672	2,468,677
Gross Profit	347,532	373,835	405,814	646,615	678,625
Sell General & Admin Expense	(141,526)	(142,389)	(152,303)	(219,116)	(226,082)
Operating Profit	157,011	181,404	202,637	341,889	361,911
Net Interest & Other Income	(5,814)	1,369	(88)	(178)	4,666
Associates	NA	NA	NA	NA	NA
Pretax Income	151,198	182,773	202,549	341,711	366,576
Tax (expense) / Benefit	(25,723)	(29,511)	(34,015)	(30,797)	(46,915)
Net Income (Adjusted)	125,476	153,244	168,534	291,512	300,353
Average Fully Diluted Shares Outstanding	1,453	1,453	1,573	1,573	1,573
Key Cash Flow Statement Data					
Net Income (Reported)	125,476	153,244	168,534	291,512	300,353
Depreciation & Amortization	48,995	50,042	50,874	85,610	90,632
Change in Working Capital	(42,218)	(108,528)	36,028	(53,078)	(15,165)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	15,469	50,067	9,982	25,562	28,691
Cash Flow from Operations	147,722	144,824	265,417	349,606	404,512
Capital Expenditure	(300,591)	(244,405)	(253,838)	(178,586)	(195,440)
(Acquisition) / Disposal of Investments	13,988	(42,548)	(13,381)	0	(5,000)
Other Cash Inflow / (Outflow)	NA (SS)	NA (SS)	NA	NA	NA (222 112)
Cash Flow from Investing	(286,603)	(286,953)	(267,219)	(178,586)	(200,440)
Shares Issue / (Repurchase)	59,248	(181)	168,240	(21 520)	(27, 011)
Cost of Dividends Paid	(30,247)	(2,764)	(17,016)	(21,529)	(26,911)
Cash Flow from Financing	132,088	167,500	57,684	(171,529)	(98,911)
Free Cash Flow Net Debt	(152,870)	(99,580)	11,579	171,020	209,072
Change in Net Debt	317,144 109,881	462,219 145,075	312,798 (149,422)	163,307 (149,491)	(13,854) (177,161)
Key Balance Sheet Data	107,001	143,073	(147,422)	(147,471)	(177,101)
	011 //0	1 107 4//	1 220 420	1 400 404	1 500 010
Property, Plant & Equipment	911,669	1,127,466	1,330,430	1,423,406	1,528,213
Other Non-Current Assets Trade Receivables	52,680 38,314	95,229 60,683	108,610 68,067	108,610 136,839	113,610 143,716
Cash & Equivalents	19,370	44,742	100,623	100,039	205,275
Other Current Assets	273,475	409,464	412,695	400,488	431,265
Total Assets	1,295,508	1,737,583	2,020,425	2,169,456	2,422,079
Long-Term Debt	252,288	390,744	306,561	181,561	134,561
Other Non-Current Liabilities	69,905	77,983	87,965	94,124	103,507
Short-Term Debt	84,227	116,217	106,860	81,860	56,860
Other Current Liabilities	202,516	268,667	319,822	328,692	351,182
Total Liabilities	608,936	853,611	821,208	686,237	646,110
Total Equity	686,572	883,972	1,199,216	1,483,219	1,775,970
Total Equity & Liabilities	1,295,508	1,737,583	2,020,425	2,169,456	2,422,079
<i>iQmethod</i> <sup>SM</sup> - Bus Performance*					
Return On Capital Employed	14.4%	12.2%	11.0%	17.7%	16.4%
Return On Equity	22.6%	20.5%	16.8%	22.6%	19.3%
Operating Margin	13.8%	13.2%	13.2%	14.7%	14.7%
EBITDA Margin	18.1%	16.9%	16.5%	18.3%	18.3%
<i>iQmethod</i> <sup>sm</sup> - Quality of Earnings*					
Cash Realization Ratio	1.2x	0.9x	1.6x	1.2x	1.3x
Asset Replacement Ratio	6.1x	4.9x	5.0x	2.1x	2.2x
Tax Rate (Reported)	17.0%	16.1%	16.8%	9.0%	12.8%
Net Debt-to-Equity Ratio	46.2%	52.3%	26.1%	11.0%	-0.8%
Interest Cover	12.7x	16.7x	16.3x	26.1x	31.9x
Key Metrics					
* For full definitions of iOmethod SM measures, see page 1	7				

<sup>\*</sup> For full definitions of *iQmethod* <sup>SM</sup> measures, see page 17.

#### **Company Description**

India's largest petchem and second largest refining company, Reliance, owns a 660kbpd refinery. Along with RPL, its total refining capacity would be 1.2mbpd by 2009. It also has a 900ktpa cracker, 1mtpa polyester, 1.9mtpa polymer and over 3mtpa of fibre intermediate capacities. Refining contributes 55% to revenues with petchem contributing 43%. The company has discovered gas with initial inplace reserves of over 40tcf on the East Coast.

#### **Investment Thesis**

Share price drivers are (1) Very strong earnings growth in FY10E, (2) large reserve accretion potential, and (3) upside to valuation on diversification into organized retail (valued at Rs102/share) and SEZ (not valued). RIL's 2P reserves and resources of 4.7bn boe are from exploration of just 5pct of its Indian acreage. It is embarking on a US\$4bn exploration program of its highly prospective acreage. We believe positive news flow by way of more discoveries and reserve accretion will continue.

#### Stock Data

Shares / GDR	2.00
Price to Book Value	1 7x

### Cut RIL earnings and valuation RIL's FY09-FY11E earnings cut by 4-10%

#### Cut in refining margins main reason for earnings cut

We have cut RIL's FY09-FY11E earnings forecast by 4-10%. The main reason for the earnings cut is the cut in RIL and its refining subsidiary RPL's refining margin forecast.

Table 1: RIL earnings cut

Source: DSP Merrill Lynch Estimates

Rs/share RIL's EPS for	Revised	Old	Change
FY09E	107.1	115.4	-7%
FY10E	185.3	206.3	-10%
FY11E	190.9	198.1	-4%

## FY09E earnings cut mainly due to RIL's refining margin cut Assuming RPL will not operate in FY09E also hit earnings by

The main reasons for the 7% cut in RIL's FY09E earnings are

- Cut in RIL's FY09E refining margin forecast by 8% to US\$12.7/bbl. This cut is in line with the cut in Singapore refining margin forecast by 8%
- Our assumption now that refining subsidiary RPL will not commence commercial operations in FY09E. We were earlier assuming three months of commercial operations for RPL in FY09E with its profit being Rs17.1bn (RIL has 70% stake in RPL)

# Steeper earnings cut but for weaker rupee & chemical margin upgrade RIL's FY09E earnings cut would have been steeper at 13% if the only change made in FY09E was cut in refining margins and assuming no operation for RPL. However the following changes we have made has meant that RIL's FY09E earnings cut is 7%

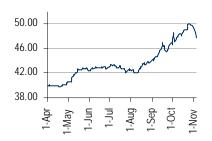
- Assuming exchange rate to be Rs44.5 vis-à-vis US dollar as against Rs 43
- Upgrade in naphtha cracking margins by 24% to US\$619/ton form US\$500/ton earlier. Y-t-d naphtha cracking are 45% higher than our earlier forecast.

# Y-t-d exchange rate Rs43.6 and current rate Rs47.8; FY09E now Rs44.5 Y-t-d Indian rupee is Rs43.6 vis-à-vis US dollar while the prevailing exchange rate is Rs47.8. We are now assuming FY09E average exchange rate to be Rs44.5, which implies exchange rate to be Rs45.8 in the rest of FY09.

#### Y-t-d naphtha cracking margins 45% higher than old forecast

Y-t-d naphtha cracking margins have averaged US\$727/ton while our earlier FY09E forecast was US\$500/ton. We have now upgraded FY09E naphtha cracking margins by 24% to US\$619/ton. This implies we are assuming naphtha cracking margins to be US\$467/ton in the rest of FY09.

Chart 1: Indian rupee exchange rate vis-à-vis US dollar



Source: Bloomberg

## FY10E EPS cut - refining and petrochemical margins cut 15% cut in RIL and RPL's refining margins; 3-60% cut petrochem margins The 10% cut in RIL's FY10E earnings has been driven by

- 15% cut in RIL and RPL's refining margin to US\$10.1-12.5/bbl from US\$11.8-14.6/bbl assumed earlier
- 3-60% cut in margins of various petrochemical products

#### 3-60% cut in FY10E petrochemical product margins

We have also revised FY10E margin forecast for various petrochemical products in most cases downwards. The main product margins, which have been cut, are naphtha cracking (ie ethylene), polypropylene (PP) and paraxylene (PX). FY10E margins for these products have been cut by 3-60%.

Table 2: Change in FY10E petrochemical product forecast

US\$/ton	Revised	Old	Change
Change in FY10E			
Naphtha cracking margins	494	507	-3%
PP-propylene	130	170	-24%
PX-naphtha	100	250	-60%
Source: DSP Merrill Lynch Estimates			

#### Revised FY10E petrochemical margins 32-76% below y-t-d FY09 levels

The revised FY10E margins of petrochemical products, which have been cut, are 32-76% below average y-t-d margins of these products in FY09E. Thus we are assuming margins declining steeply form current levels in FY10E

Table 3: FY10E margins vis-à-vis Y-t-d in FY09

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US\$/ton	FY10E	Y-t-d in FY09	Change
Petrochemical margins			
Naphtha cracking margins	494	727	-32%
PP-propylene	130	231	-44%
PX-naphtha	100	414	-76%
Source: DSP Merrill Lynch Estimates			

#### FY10E margins PTA upgraded; RIL to gain as integrated producer

FY10E petrochemical margins of all products have not been downgraded. FY10E PTA-PX margins for example have been upgraded by 83% to US\$220/ton from US\$120/ton earlier. We expect PTA to gain from weakness in paraxylene.

#### Weaker rupee to partly make up for cut in refining & petrochem margins

The cut in refining and petrochemical margins would have meant 13% cut in FY10E earnings. However assuming exchange rate to be Rs43 vis-à-vis US dollar as against Rs42 earlier has meant earnings decline is restricted to 10%.

#### FY11E EPS cut due to refining margins cut

#### 7-10% cut in RIL & RPL's refining margins

The 4% cut in RIL's FY11E earnings has been driven mainly by 7-10% cut in RIL and RPL's refining margin. We have cut their refining margins to US\$9.8-12.1/bbl from US\$11.1-13.5/bbl assumed earlier.

#### Weaker rupee to partly make up for cut in refining margins

The cut in refining margins would have meant 6% cut in FY10E earnings. However assuming exchange rate to be Rs42 vis-à-vis US dollar as against Rs41 earlier has meant earnings decline is restricted to 4%.

## RIL's FY09-FY11E EBIT cut by 3-11% in rupee terms FY09-FY11E EBIT cut by 5-13% in US dollar terms

The net impact of the cut in refining margins, change in petrochemical margins and assuming a weaker rupee is 3-11% cut in RIL's FY09-FY11E EBIT.

Table 4: Cut in RIL's EBIT in rupee and US dollar terms

	Rs-m			US\$m		
	Revised	Old	Change	Revised	Old	Change
RIL's EBIT in			_			•
FY09E	210,337	232,761	-10%	4,727	5,421	-13%
FY10E	350,353	395,542	-11%	8,148	9,418	-13%
FY11E	377,906	389,672	-3%	8,998	9,501	-5%

Source: DSP Merrill Lynch Estimates

## E&P to be over 50% of RIL's EBIT in FY10-FY11E Petrochemical EBIT to be 9-10% of EBIT in FY10-FY11E

E&P will be 51% of RIL's FY10E EBIT and 55% of FY11E EBIT based on our revised estimates. It was 44-52% of FY10-FY11E EBIT as per our earlier estimates. Petrochemicals now are expected to be 9% of RIL's FY10E EBIT as against 12% earlier.

## Existing refinery EBIT to contract US\$1.1-1.2bn from peak Refining EBIT includes RPL's EBIT of US\$1.7bn in FY10-FY11E

RIL's FY10-FY11E EBIT as given in Table 5 includes EBIT of RIL's refining subsidiary RPL. RPL's refining EBIT is US\$1.7bn in FY10-FY11E. Thus EBIT from RIL's existing refinery is US\$1.5bn in FY10E and US\$1.4bn in FY11E. This means we are assuming EBIT from RIL's existing refinery declining by US\$1.1-1.2bn in FY10-FY11E from peak level of US\$2.6bn achieved in FY08.

Table 5: RIL's segment wise EBIT break-up

FY08	FY09E	FY10E	FY11E
2,576	2,036	3,198	3,112
1,779	1,316	760	939
375	1,315	4,140	4,907
79	60	50	40
4,809	4,727	8,148	8,998
54%	43%	39%	35%
37%	28%	9%	10%
8%	28%	51%	55%
2%	1%	1%	0.4%
100%	100%	100%	100%
51%	-21%	57%	-3%
22%	-26%	-42%	24%
31%	251%	215%	19%
39%	-2%	72%	10%
	2,576 1,779 375 79 4,809 54% 37% 8% 2% 100%	2,576 2,036 1,779 1,316 375 1,315 79 60 4,809 4,727  54% 43% 37% 28% 8% 28% 2% 1% 100% 100%  51% -21% 22% -26% 31% 251%	2,576       2,036       3,198         1,779       1,316       760         375       1,315       4,140         79       60       50         4,809       4,727       8,148         54%       43%       39%         37%       28%       9%         8%       28%       51%         2%       1%       1%         100%       100%       100%         51%       -21%       57%         22%       -26%       -42%         31%       251%       215%

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## Petrochemical EBIT to contract US\$0.8-1.0bn from peak Peak petrochemical EBIT was US\$1.8bn in FY08

RIL's petrochemical EBIT was US\$1.8bn in FY08. We expect its petrochemicals EBIT to decline from FY08E levels by

- US\$463m in FY09E
- US\$1bn in FY10E
- US\$840m in FY11E

## 2-year EPS CAGR to FY10E now at 33% from 40% earlier 73% YoY earnings growth expected in FY10E

RIL's FY10E earnings would be 73% YoY higher based on our revised earnings estimates. Its FY10E earnings growth was 79% YoY on our earlier earnings estimates. RIL's 2-year EPS CAGR to FY10E, which was 40% earlier, is 33% now. Thus we still expect strong 2-year EPS CAGR to FY10E.

Table 6: YoY change in RIL's FY09-FY11E profit and EPS

Rs/share	FY08	FY09E	FY10E	FY11E
RIL's recurring profit (Rs-m)	153,244	168,534	291,512	300,353
Outstanding shares	1,453	1,573	1,573	1,573
RIL's recurring EPS	105.4	107.1	185.3	190.9
YoY change				
RIL's recurring profit		10%	73%	3%
RIL's recurring EPS		2%	73%	3%
Source: DSP Marrill Lynch Estimates				

## Singapore margin cut prompts RIL margin cut FY09-FY11E Singapore refining margin cut by 7-18%

The Singapore complex refining margins forecast for FY09-FY11E has been cut by 7-18% to US\$6.9-9.7/bbl from US\$7.5-10.5/bbl. The cut in refining margin forecast is mainly due to expected weakness in oil demand due to global economic slowdown. Large refining capacity addition expected in 2009E will also hurt refining margins.

Table 7: Singapore refining margins cut

- auto / Cinigapor o romming mangine out			
US\$/bbl	Revised	Old	Change
Singapore complex refining margins forecast			
FY09E	9.7	10.5	-8%
FY10E	7.2	8.7	-18%
FY11E	6.9	7.5	-7%

Source: DSP Merrill Lynch Estimates

# Implied Singapore margin in 2H FY09E US\$8.6/bbl; US\$10.8/bbl to date Singapore complex refining margins have averaged US\$10.8/bbl from April to October 2008. Our new Singapore refining margin forecast of US\$9.7/bbl for FY09E implies that we expect Singapore refining margin to be US\$8.6/bbl in the rest of FY09E.

## 8-15% cut in RIL's FY09-FY11E refining margin forecast US\$10.9/bbl refining margin implied in 2H; US\$14.5/bbl achieved in 1H The 7-18% cut in Singapore complex refining margin forecast has prompted a cut

in RIL's FY09-FY11E refining margin forecast by 8-15%.

RIL's refining margin in 1H FY09 was US\$14.5/bbl. Our revised refining margin forecast of US\$12.7/bbl for RIL in FY09E implies its refining margin being US\$10.9/bbl in 2H.

Table 8: RIL's refining margins cut

Source: DSP Merrill Lynch Estimates

US\$/bbl	Revised	Old	Change
RIL's refining margins forecast			_
FY09E	12.7	13.8	-8%
FY10E	10.1	11.8	-15%
FY11E	9.8	11.1	-12%

#### RIL's premium to Singapore margins also assumed to be weaker

Table 9 gives RIL's FY09-FY11E refining margin build-up. We expect RIL's premium to Singapore margins to weak as the benchmark margins weaken.

Table 9: RIL's refining margin build-up

US\$/bbl	FY09E	FY10E	FY11E
Singapore complex refining margin forecast	9.7	7.2	6.9
RIL's premium to Singapore refining margins	2.3	2.1	2.0
Cost saving from D6 gas use in place of liquid fuels	0.8	8.0	0.8
RIL's refining margin	12.7	10.1	9.8
Source: DSP Merrill Lynch Estimates			

## 10-15% cut in RPL's refining margins RPL's refining margin to be higher than RIL

The 7-18% cut in Singapore complex refining margin forecast has prompted a cut in RPL's FY10-FY11E refining margin forecast by 10-15%. We expect RPL's refining margins to be higher than RIL's margins due to

- RPL's ability to refine cheaper heavier crude than RIL. It can refine crude with average API of 24 vis-à-vis average API of 28 in RPL's case
- RPL's superior product slate. RPL should produce more gasoline than RIL and less LPG and naphtha than RIL. Though gasoline cracks are likely to be weak, LPG and naphtha cracks would be and have been weaker than gasoline cracks

Table 10: RPL's refining margins revision

- auto 1011ti 2 0 1011ting marginio 1011oion			
US\$/bbl	Revised	Old	Change
RIL's refining margins forecast			•
FY10E	12.5	14.6	-15%
FY11E	12.1	13.5	-10%
Source: DSP Merrill Lynch Estimates			

#### Weaker rupee assumed

#### 2-3% weaker rupee assumed in FY09-FY11E

#### Rupee could be weaker than assumed

We have assumed a weaker rupee than we were assuming earlier in FY09-FY11E. The rupee could be weaker than we have assumed.

Table 11: Change in exchange rate assumptions

Rs	FY09E	FY10E	FY11E
Rupee vis-à-vis US dollar			
Revised	44.5	43.0	42.0
Old	43.0	42.0	41.0
Change	3%	2%	2%

Source: DSP Merrill Lynch Estimates

#### Sensitivity analysis of RIL's earnings

#### Oil and refining margin downsides; Exchange rate upside

The three main variables, to which RIL's earnings are the most sensitive, are

- Refining margins
- Oil prices
- Exchange rate

## Oil price cut the most imminent risk to revised earnings FY10-FY11E Brent price forecast US\$90-100/bbl; Brent at US\$57/bbl

The most imminent risk to RIL's revised earnings appears to be oil price. We are still assuming FY10-FY11E Brent price to be US\$90/bbl and US\$100/bbl respectively. The prevailing Brent price is much lower at US\$57/bbl. Thus a cut in FY10-FY11E oil price forecast is the most imminent downside risk to our revised earnings forecast.

#### 8% downside to RIL's FY10E EPS if Brent averages US\$50/bbl

The downside to RIL's FY10E earnings would be 8% at Rs170.7/share if Brent averages US\$50/bbl vis-à-vis US\$90/bbl assumed by us. The downside to FY11E earnings would be 7% at Rs176.9/share if Brent averages US\$50/bbl in FY11E.

### Weaker rupee the only real upside risk to revised earnings Rs42-43 exchange rate in FY10-FY11E; current exchange rate Rs47.7

The only real upside risk to RIL's earnings appears to be from the rupee being weaker vis-à-vis US dollar than we have assumed. We are assuming the rupee to be Rs43 in FY10E and Rs42 in FY11E. It currently is 11-14% weaker at Rs47.7.

#### RIL's earnings highly sensitive to exchange rate

RIL's earnings are highly sensitive to the exchange rate. It will gain significantly if the rupee is weaker than assumed. The following key variables are US dollar denominated and therefore would be higher in rupee terms if the rupee was weaker

- Gas price. RIL's KG D6 gas price has been fixed at US\$4.2/mmbtu
- Oil price. RIL's oil production from the KG D6 block is benchmarked to Nigerian Bonny Light crude
- Refining margins. RIL's crude and product prices are US dollar denominated as it entirely imports its crude and largely exports its products
- Petrochemical margins. Though a large portion of its petrochemical products are sold in India, the pricing is on import parity basis and therefore effectively US dollar denominated

#### RIL's FY10E EPS up 13% if rupee 10% weaker than expected

We expect RIL's FY10E EPS to be 13% higher at Rs209.1/share if the rupee is 10% weaker than assumed at Rs47.3 vis-à-vis US dollar. The upside to FY11E EPS would be 12% at Rs214.6/share if rupee is 10% weaker than base case at Rs46.2.

#### Sensitivity of RIL's FY10E EPS to oil prices

Table 12 gives sensitivity of RIL's FY10E EPS to Brent price from US\$40-90/bbl. Base case is based Brent at US\$90/bbl.

Table 12: Sensitivity of RIL's FY10E earnings to oil price

Brent price (US\$/bbl)	FY10E EPS (Rs/share)
40.0	167.0
50.0	170.7
60.0	174.4
70.0	178.1
80.0	181.8
90.0 (base case)	185.3

Source: DSP Merrill Lynch Estimates

Table 13: Sensitivity of RIL's FY10E EPS to exchange rate

Exchange rate	FY10E EPS (Rs/share)
40.0	168.5
41.0	174.1
42.0	179.7
43.0 (base case)	185.3
44.0	190.8
45.0	196.4
46.0	201.9
47.0	207.4
48.0	212.9
49.0	218.4
50.0	223.9

Source: DSP Merrill Lynch Estimates

#### Sensitivity to exchange rate

Table 13 gives sensitivity of RIL's FY10E EPS to exchange rate from Rs40-50 vis-à-vis US dollar. Base case is based on rupee at Rs43.

#### Sensitivity of RIL's FY10E EPS to refining margins

Rs13.7 change in EPS for every US\$1/bbl change in Singapore margins RIL's earnings would also be highly sensitive to refining margins. We estimate change in RIL's FY10E EPS to be RS13.7/share for every US\$1/bbl change Singapore complex refining margin

Table 14: Sensitivity of RIL's FY10E earnings to Singapore refining margins

Singapore complex refining margin (US\$/bbl)	FY10E EPS (Rs/share)
4.0	142.0
5.0	155.8
6.0	169.5
7.0	183.2
7.2 (base case)	185.3
8.0	197.0
9.0	210.7
Courses DCD Marrill Lynch Estimates	

The refining margins we expect RIL and RPL to achieve at various levels of Singapore complex refining margins are given in Table 15.

Table 15: Expected refining margin of RIL and RPL at various Singapore margin levels

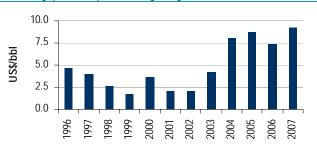
US\$/bbl	Refining mar	Refining margin of		Premium to Singapore		
Singapore complex refining margin	RIL	RPL	RIL	RPL		
4.0	6.0	7.6	2.0	3.6		
5.0	7.3	9.1	2.3	4.1		
6.0	8.6	10.7	2.6	4.7		
7.0	9.9	12.2	2.9	5.2		
7.2 (base case)	10.1	12.5	2.9	5.3		
8.0	11.2	13.8	3.2	5.8		
9.0	12.5	15.3	3.5	6.3		
Source: DSP Merrill Lynch Estimates						

Can Singapore margins fall to Asian crisis levels?
Singapore complex margins averaged US\$2.7/bbl during 1997-2003

Singapore complex refining margins averaged US\$2.7/bbl during 1997-2003, which is during the Asian crisis and few years thereafter. Singapore margins were

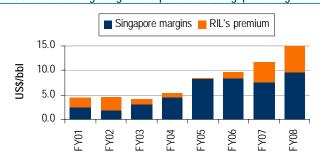
which is during the Asian crisis and few years thereafter. Singapore margins we as low as US\$1.7/bbl in 1999. In good years during this period margins were around US\$4/bbl.

Chart 2: Singapore complex refining margin trend from 1996



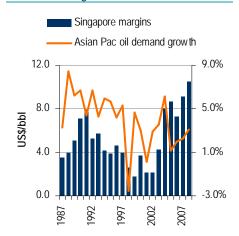
Source: Merrill Lynch

Chart 3: RIL's refining margins and premium to Singapore margins



Source: Company, DSP Merrill Lynch

## Chart 4: Singapore complex margins and Asia Pac oil demand growth



Source: BP Statistical Review, 1997, Merrill Lynch

#### RIL's refining margins range US\$4.0-15.0/bbl; always at premium

RIL's refining margins averaged US\$4-4.5/bbl in the first three years of its operations when Singapore margins averaged US\$1.8-3.1/bbl. Thus its margins were at US\$1.0-2.7/bbl premium to Singapore complex refining margins.

#### RIL more complex now; gas use to also boost refining margins

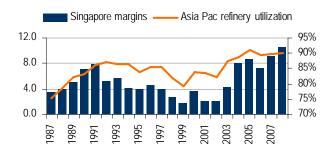
RIL's refinery has become more complex since 4Q 2005, when its Nelson complexity index improved from 9.9 to 11.3. RIL also now produces Euro IV diesel. RIL also plans to use KG D6 gas in its refinery instead of naphtha and fuel oil, which would also boost its refining margins further.

#### Weakening to Asian crisis levels of sustained basis appears unlikely

We believe that weakening of Singapore refining margins to Asian crisis levels appears unlikely at least on a sustained basis. This view is due to the following factors

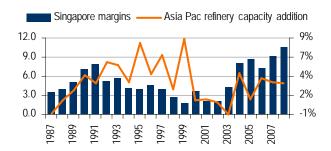
- The Asian crisis was Asia centric while the current crisis is developed world centric. In 2008 Asian refining margins are stronger than in Europe and US.
- Asian refinery utilization level was 84-85% in the two years prior to Asian crisis. Asian refinery utilization level has been higher at 89.5-90% in 2006-2007 and is likely to be at similar level in 2008
- Refinery capacity addition in Asia was strong before and during the Asian crisis up to1999. There was 7-9% YoY rise in capacity in 1995, 1997 and 1999. By contrast from 2000-2007 the average annual capacity addition in Asia is 1.7%.

Chart 5: Singapore complex margins and Asia Pac refinery utilization



Source: BP Statistical Review, 1997, Merrill Lynch

Chart 6: Singapore complex margins and Asia Pac capacity addition



Source: BP Statistical Review, 1997, Merrill Lynch

Singapore complex refining margins had weakened to US\$3.9-4.6/bbl in 1994-1996 before the crisis hit in 1997 vis-à-vis US\$5.3-7.9/bbl in 1990-1993. Singapore complex margins have been far more robust at US\$7.3-9.2/bbl in 2004-2007 with 2008E margins likely to be close to US\$10/bbl (y-t-d at US\$10.4/bbl)

## Asian utilization may decline to 84.8-86.5% in 2009-2010E Asian refinery utilization at 79.3-81.9% in 1998-1999

Asian oil demand growth could be just 0.3m bpd in 2009E and 2010E while over 2.2m bpd capacity may get added. Thus utilization level could decline to 84.8-86.5% levels in 2009-2010E. However these utilization levels are far higher than 79.3-81.9% attained in 1998-1999.

#### Refining margin weakness to delay or lead to cancellation of projects

The weakening of refining margins expect in 2009E and perhaps even in 2010E may mean cancellation of refinery projects being contemplated or delay in such projects. Raising debt to fund these projects is likely to be difficult in this environment.

## RIL's PO cut by 19% to Rs1,927/share EV/EBITDA based valuation for refining and petrochemicals DCF based valuation used earlier

We have cut RIL's price objective by 19% to Rs1,927/share from Rs2,367/share earlier. We are now valuing the following on EV/EBITDA basis as against on DCF basis earlier

- RIL's refining business
- RIL's petrochemical business
- Value of RIL's shares in refining subsidiary RPL

#### Table 16: RIL's sum of parts valuation

INR/share	Valuation measure used	Valuation			
Business/Investment		USDbn	Rs-bn	Rs/share	Break-up
Petrochemicals (8x FY10E EBITDA)	EV/EBITDA	9.8	411	300	16%
Refining & Marketing (7x FY10E EBITDA)	EV/EBITDA	12.3	518	378	20%
Value of investment in RPL (Rs103/share)	EV/EBITDA	7.8	327	239	12%
Exploration & production	DCF	29.7	1,247	909	47%
Retail	DCF	3.3	139	102	5%
Sum of parts valuation		62.9	2,643.0	1,927	100.0%
No of shares (excluding treasury shares)				1 372	

No of shares (excluding treasury shares)

Source: DSP Merrill Lynch Estimates

#### EV/EBITDA multiples of 6-8x used

RIL's refinery EBITDA on 7x, petrochemicals on 8x and RPL on 6x The EV/EBITDA multiples used by us are as follows

- RIL's refining business based on 7x FY10E EBITDA
- RIL's petrochemical business based on 8x FY10E EBITDA
- RPL's shares valued based on 6x FY10E EV/EBITDA

Based on history  $8x\ EV/EBITDA$  is the benchmark valuation. We have thus used 0-25% discount to benchmark multiple.

#### RIL one of the most complex refineries in Asia and margin leader

RIL is one of the most complex refiners in Asia. It has also consistent attained higher refining margins than its Asian peers. We have therefore used a high multiple of 7x to value the refining business.

Table 17: Refining margins of Asian refiners in the last 4 years

US\$/bbl	2004/ FY05	2005/ FY06	2006/ FY07	2007/ FY08
India				
RIL	8.0	9.7	11.7	15.0
BPCL	5.2	2.3	3.6	5.2
HPCL	5.3	2.9	4.1	6.5
IOC	6.2	5.2	4.2	9.0
Chennai Petroleum**	5.3	3.7	5.0	8.5
Bongaigaon Refineries**	8.5	2.5	4.4	7.2
MRPL**	6.2	4.2	5.6	7.0
Australia				
Caltex	6.6	8.4	8.2	9.3
Korea				
S-Oil	6.2	6.0	3.4	9.4
SK Energy	6.9	5.7	4.3	5.2
GS Caltex	4.2	5.1	3.9	8.9
Pakistan				
Pakistan Refinery Limited	2.3	3.9	3.3	1.9
Taiwan				
Formosa Petrochem	9.9	10.2	8.6	14.1
Thailand				
TOP	6.5	6.6	4.8	9.0
PTTAR	7.0	7.5	5.4	10.0
BCP	n/a	5.6	2.4	5.1
IRPC	n/a	6.3	4.7	5.7
Singapore				
SPC	4.9	4.1	4.6	7.0
Australia				
Caltex	6.6	8.4	8.2	9.3
Singapore complex benchmark ** Not covered by us	8.1	8.7	7.3	9.2

Source: Companies, Merrill Lynch

#### Integrated and diversified petrochemical business

RIL's petrochemical business is fully integrated with presence across the chain in polyester from naphtha to paraxylene to PTA and MEG to polyester fiber and yarn. RIL also has strong presence in polymers. It thus has large diversified portfolio of petrochemical products. We have therefore used a 8x multiple to value RIL's petrochemical business.

Another reason for using a high multiple of 8x is that petrochemical margins assumed are rather weak. RIL's FY10E petrochemical EBITDA is 40% lower than peak FY08 EBITDA.



## 26-42% cut in refining, petrochemical & RPL valuation Petrochemical valuation down 42%, refining down 26% and RPL 28%

We have cut RIL's refining business valuation by 26% from earlier levels, petrochemicals by 42% and value of investment in RPL by 28%. E&P and retail valuation is unchanged.

Table 18: RIL's new and earlier sum of parts valuation

Rs/share	Revised	Old	Char	ige
Business/Investment				
Petrochemicals	300	514	(214)	-42%
Refining & Marketing	378	509	(131)	-26%
Value of investment in RPL (Rs143/share)	239	333	(94)	-28%
Exploration & production	909	909	0	0%
Retail	102	102	(0)	0%
Sum of parts valuation	1,927	2,367	(440)	-19%

Source: DSP Merrill Lynch Estimates

2-mmtpa ethylene cracker & 2.5mmtpa PX not included; was part of DCF When we valued RIL's petrochemical business on DCF basis we had also included its proposed 2mmtpa ethylene cracker and 2.5mmtpa PX projects. These projects are expected to start in 3-4 years. Now with valuation being based on FY10E EV/EBTDA, these projects are not included in RIL's petrochemical valuation. This is one of the reason the decline in petrochemical valuation is the steepest.

#### RIL's standalone net debt at just US\$1.2bn in FY10E Net debt at US\$3bn in October 2008

RIL's gross debt was Rs380bn and net debt at Rs300bn in September 2008. The promoters brought in Rs152bn in early October, which means net debt must have declined to Rs148bn (US\$3bn) in October. We expect net debt to be US\$3.9bn in FY09E and just US\$1.2bn in FY10E.

Table 19: RIL's net debt estimates

Rs-m	FY08	FY09E	FY10E
Total Debt	506,961	413,421	263,421
Cash	44,742	100,623	100,114
Consolidated net debt	462,219	312,798	163,307
Less: RPL's net debt	128,253	139,446	111,183
RIL's standalone net debt	333,966	173,352	52,124
Net debt in US\$m			
Consolidated net debt	11,413	7,029	3,798
RPL's net debt	3,167	3,134	2,586
RIL's standalone net debt	8,246	3,896	1,212
Source: DSP Merrill Lynch Esimates			

We retain Buy on RIL

33% 2-year EPS CAGR despite 4-10% FY09-FY11E EPS cut Cut in refining & petrochemical margins; FY10E EBIT 72% YoY higher

We have cut RIL's FY09-FY11E EPS by 4-10% mainly due to cut in RIL and RPL's refining margin forecast. In FY10E petrochemical margins, too, have been cut. Thus now we expect RIL's existing refining and petrochemical EBIT to decline by US\$2.2bn from peak levels attained in FY08. However, FY10E EBIT is still expected to be 72% YoY higher driven by KG D6 oil and gas (0.6m boepd of output at peak) and RPL refinery (0.58m bpd).



We expect 2-year EPS CAGR in FY08-FY10E to be 33% vis-à-vis 40% before the earnings cut. Thus RIL is expected to have one of the strongest earnings growth among oil companies in our global universe and even within India

#### Positive news flow on E&P to continue

Positive news flow on E&P in terms of discoveries and reserves accretion is likely to continue. RIL is scheduled to drill in at least 3 highly prospective blocks (KG D6, KG D9 and Mahanadi D4) in the next 12 months.

#### Strong growth prospects beyond FY10E, too

We believe RIL has strong growth prospects even beyond FY10E. Prospects beyond FY10E will be driven by (i) 2 large petrochemical projects (ii) rise in gas reserves and production (iii) organized retail (iv) SEZ

#### Some main risks also appear to be receding

There are indications that some of the main risks like no tax holiday for gas production and windfall tax are receding.

#### Attractive valuation

RIL's valuation is compelling now at 6.6x on FY10E EPS. The multiple also needs to be considered in the context of the strong earnings growth in FY10E and strong growth prospects beyond FY10E.

#### RIL's PO offers 58% potential upside despite 19% cut

We have also cut RIL's PO by 19% to Rs1,927/share. Even the revised PO offers 58% potential upside. We retain Buy on RIL.



## Price objective basis & risk Reliance Inds (XRELF / RLNIY)

Our PO of Rs1,927 (GDR US\$98.82) is based on an Sum of parts valuation. The value of the refining and petrochemical business has been calculated on EV/EBITDA basis using multiple of 7-8x on FY10E EBITDA. The value of its investment in Reliance Petroleum (RPL) is calculated by applying the EV/EBITDA based value of RPL (multiple of 6x FY10E EBITDA) to RIL's holding in RPL. Oil and gas reserves and resources, as well as its retail business, are valued on a DCF basis using WACC of 11.8%. Refining and marketing, including investment in RPL, is 32pct of PO, E&P valuation (Rs909) 47pct, petrochemicals 16pct and organized retail 5pct. RIL offers strong EPS CAGR during FY08E-10E, which is far higher than peers. It is the cheapest among its peer group on a PEG basis. Risks are (1) Decline in refining and petrochemical margins being steeper than expected, (2) Lower than expected oil price. (3) huge disappointments on the E&P front as we have valued exploration upside of Rs181/share, (4) failure in the retail business, and (5) changes in government policies (eg, withdrawal of the tax holiday) which may have a direct impact on the business, cash flow and profit.

#### **Analyst Certification**

I, Vidyadhar Ginde, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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APR - Energy Coverage Cluster

Investment rating	Company	ML ticker	Bloomberg symbol	Analyst
BUY				
	Cairn India	XCANF	CAIR IN	Vidyadhar Ginde
	China BlueChem	CBLUF	3983 HK	Bin Guan
	CNOOC Ltd.	CEO	CEO US	Bin Guan
	CNOOC Ltd.	CEOHF	883 HK	Bin Guan
	COS Limited	CHOLF	2883 HK	Bin Guan
	Hindustan Petro.	XHTPF	HPCL IN	Vidyadhar Ginde
	IOC	IOCOF	IOCL IN	Vidyadhar Ginde
	ONGC	ONGCF	ONGC IN	Vidyadhar Ginde
	Reliance Inds	XRELF	RIL IN	Vidyadhar Ginde
	Reliance Inds -G	RLNIY	RIGD LI	Vidyadhar Ginde
	Sinofert HLDG	SNFRF	297 HK	Bin Guan
	SK Energy Co Ltd	XVERF	096770 KS	Sonia Song
	SK Holdings	SKCXF	003600 KS	Sonia Song
NEUTRAL	, and the second			The state of the s
	Aban Offshore L	XBWTF	ABAN IN	Vidyadhar Ginde
	BPCL	XBPCF	BPCL IN	Vidyadhar Ginde
	Gushan Environmental Energy	GU	GU US	Bin Guan
	Shell Refining	SRMMF	SHELL MK	Sonia Song
UNDERPERFORM				
	Formosa Chems	XFUMF	1326 TT	Sonia Song
	Formosa Petro	FPTCF	6505 TT	Sonia Song
	Formosa Plastics	FSAPF	1301 TT	Sonia Song
	GS Holdings Corp	GSHDF	078930 KS	Duke Suttikulpanich
	Hanwha Chem Corp	HAYCF	009830 KS	Stephan Han
	Honam Petrochem	HBBHF	011170 KS	Stephan Han
	LG Chem Ltd	LGCLF	051910 KS	Stephan Han
	Nan Ya Plastics	NNYPF	1303 TT	Sonia Song
	Petrochina	PCCYF	857 HK	Bin Guan
	Petrochina - A	PTR	PTR US	Bin Guan
	Petronet LNG Ltd	POLNF	PLNG IN	Vidyadhar Ginde
	RPL	RPLUF	RPET IN	Vidyadhar Ginde
	Sinopec	SNPMF	386 HK	Bin Guan
	Sinopec - A	SNP	SNP US	Bin Guan
	S-Oil Corp	SOOCF	010950 KS	Duke Suttikulpanich
	SPC	SPCJF	SPC SP	Duke Suttikulpanich



#### iQmethod<sup>™</sup> Measures Definitions

Business Performance Numerator Denominator

Return On Capital Employed NOPAT = (EBIT + Interest Income) \* (1 - Tax Rate) + Goodwill Total Assets - Current Liabilities + ST Debt + Accumulated Goodwill

Amortization Amortization Shareholders

Return On Equity Net Income Shareholders' Equity
Operating Margin Operating Profit Sales

Earnings Growth Expected 5-Year CAGR From Latest Actual N/A
Free Cash Flow Cash Flow From Operations – Total Capex N/A

**Quality of Earnings** 

 Cash Realization Ratio
 Cash Flow From Operations
 Net Income

 Asset Replacement Ratio
 Capex
 Depreciation

 Tax Rate
 Tax Charge
 Pre-Tax Income

 Net Debt-To-Equity Ratio
 Net Debt = Total Debt, Less Cash & Equivalents
 Total Equity

Interest Cover EBIT

Valuation Toolkit

Price / Earnings Ratio
Current Share Price
Diluted Earnings Per Share (Basis As Specified)
Price / Book Value
Current Share Price
Shareholders' Equity / Current Basic Shares

Dividend Yield Annualised Declared Cash Dividend Current Share Price

Free Cash Flow Yield Cash Flow From Operations – Total Capex Market Cap. = Current Share Price \* Current Basic Shares

Enterprise Value / Sales EV = Current Share Price \* Current Shares + Minority Equity + Net Debt + Sales

EV / EBITDA Enterprise Value Basic EBIT + Depreciation + Amortization

iQmethod swis the set of Merrill Lynch standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

Interest Expense

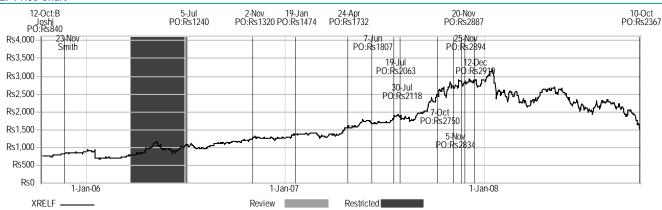
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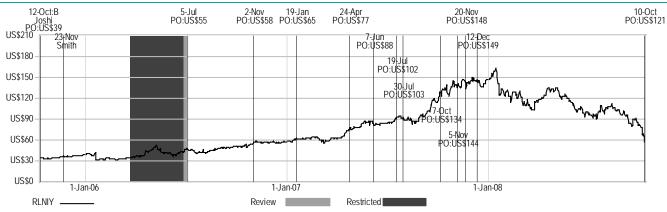
#### **XRELF Price Chart**



B: Buy, N: Neutral, S: Sell, U: Underperform, PO: Price objective, NA: No longer valid

Prior to May 31, 2008, the investment opinion system included Buy, Neutral and Sell. As of May 31, 2008, the investment opinion system includes Buy, Neutral and Underperform. Dark Grey shading indicates that a security is restricted with the opinion suspended. Light grey shading indicates that a security is under review with the opinion withdrawn. The current investment opinion key is contained at the end of the report. Chart is current as of September 30, 2008 or such later date as indicated.

#### **RLNIY Price Chart**



 $B: Buy, \ N: Neutral, \ S: Sell, \ U: Underperform, \ PO: Price \ objective, \ NA: No \ longer \ valid$ 

Prior to May 31, 2008, the investment opinion system included Buy, Neutral and Sell. As of May 31, 2008, the investment opinion system includes Buy, Neutral and Underperform. Dark Grey shading indicates that a security is restricted with the opinion suspended. Light grey shading indicates that a security is under review with the opinion withdrawn. The current investment opinion key is contained at the end of the report. Chart is current as of September 30, 2008 or such later date as indicated.

Investment Rating Distribution: Chemicals Group (as of 01 Oct 2008)

investment realing bistribution. o	nomicula croup (us of	01 001 2000)			
Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	41	45.56%	Buy	10	28.57%
Neutral	23	25.56%	Neutral	4	21.05%
Sell	26	28.89%	Sell	3	12.50%
<b>Investment Rating Distribution: G</b>	lobal Group (as of 01 (	Oct 2008)			
Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	1647	45.31%	Buy	429	28.83%
Neutral	858	23.60%	Neutral	240	31.41%
Sell	1130	31.09%	Sell	227	22.02%

<sup>\*</sup> Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months. For purposes of this distribution, a stock rated Underperform is included as a Sell.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. *VOLATILITY RISK RATINGS*, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. *INVESTMENT RATINGS* reflect the analyst's assessment of a stock's: (i) absolute total return potential and (ii) attractiveness for investment relative to other stocks within its *Coverage Cluster* (defined below). There are three investment ratings: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>\*</sup> Ratings dispersions may vary from time to time where Merrill Lynch Research believes it better reflects the investment prospects of stocks in a Coverage Cluster

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. Coverage Cluster is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent Merrill Lynch Comment referencing the stock.

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