



**ACTION**  
**Buy**

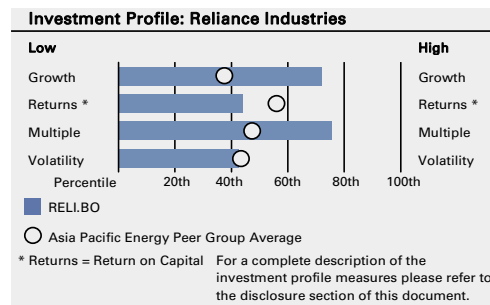
**Reliance Industries (RELI.BO)**

**Return Potential: 30%**

**Upstream undervalued; retail upside; added to Conviction Buy List**

**Source of opportunity**

We are transferring coverage of Reliance Industries to Nilesh Banerjee from Kelvin Koh, upgrading the stock to Buy from Neutral, and adding it to our Asia-Pacific Conviction Buy List. Our 12-month SOTP-based target price is Rs1,660/share (GDR: US\$74.64), implying a return potential of 29%. We believe that the company's new E&P and organized retail ventures are of materially higher value than the market is currently factoring in. In our view, the current price factors in the company's estimated total capex of US\$8 bn for these new ventures till FY2010E but is not giving full value to the potential upside this expansionary capex could bring to the stock.



**Catalyst**

We believe stock price catalysts include: (1) Confirmation of D-6 peak production of 120 mmscmd (next 3-6 months); (2) Further exploration success in the D-6, D4, NEC-25 and CBM blocks (next 3-9 months); (3) Ramp-up in organized retail over next 12 months; and (4) Commencement of KG-D6 production (mid-2008).

**Valuation**

We value Reliance on sum-of-the parts methodology based on peak cycle valuation of 5.5X FY2008E (March) EBITDA for refining, near-peak cycle valuation of 6.0X FY2008E EBITDA for the petrochemical business, and DCF for the E&P and organized retail ventures to arrive at our target price of Rs1,660. We argue that Reliance is not expensive at current levels if we adjust for the partial value of the new ventures built in the share price, given that these have yet to generate revenues.

**Key risks**

Key risks to our Conviction Buy call include delay in production from the KG Basin, reduction in the E&P drilling success rate, earlier-than-expected downturn in the refining and petrochemical cycles, and appreciation of the rupee against the US dollar.

**INVESTMENT LIST MEMBERSHIP**

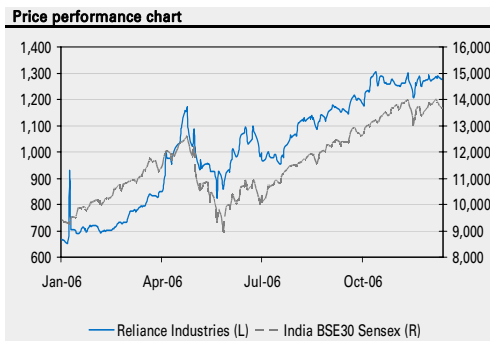
Asia Pacific Buy List  
Asia Pacific Conviction Buy List  
**Coverage view: Attractive**

India:  
Oil

**Nilesh Banerjee**  
+91(22)6616-9045 | nilesh.banerjee@gs.com Goldman Sachs India LLC  
**Kelvin Koh, CFA**  
+852-2978-1218 | kelvin.koh@gs.com Goldman Sachs (Asia) L.L.C.  
**Durga Dath**  
+91(22)6616-9047 | durga.dath@gs.com Goldman Sachs India LLC

Key data	Current
Price	1,277.10
12 month price target (Rs)	1,660.00
RELI.L Price (\$)	58.15
RELI.L 12 month price target (\$)	74.64
Market cap (Rs mn / US\$ mn)	1,779,649.1 / 40,010.1
Foreign ownership (%)	--

	3/06	3/07E	3/08E	3/09E
<b>EPS (Rs) New</b>	<b>65.10</b>	<b>79.24</b>	<b>76.35</b>	<b>101.15</b>
EPS revision (%)	(0.0)	26.3	42.1	54.1
EPS growth (%)	19.8	21.7	(3.6)	32.5
<b>EPS (dil) (Rs) New</b>	<b>65.1</b>	<b>79.2</b>	<b>76.3</b>	<b>101.1</b>
P/E (X)	19.6	16.1	16.7	12.6
P/B (X)	3.6	3.1	2.8	2.4
EV/EBITDA (X)	7.1	11.5	11.5	8.4
Dividend yield (%)	0.8	0.9	0.9	1.1
ROE (%)	20.1	20.6	17.4	20.2



Share price performance (%)	3 month	6 month	12 month
Absolute	10.7	23.8	87.8
Rel. to Bombay SE Sensitive Index	0.2	(4.7)	31.5

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 1/09/2007 close.

The Goldman Sachs Group, Inc. 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. For Reg AC certification, see the text preceding the disclosures. For other important disclosures go to [www.gs.com/research/hedge.html](http://www.gs.com/research/hedge.html). Analysts employed by non-US affiliates are not required to take the NASD/NYSE analyst exam.

# Reliance Industries: Summary financials

Profit model (Rs mn)	3/06	3/07E	3/08E	3/09E	Balance sheet (Rs mn)	3/06	3/07E	3/08E	3/09E
<b>Total revenue</b>	<b>808,696.3</b>	<b>1,042,618.8</b>	<b>1,039,122.6</b>	<b>1,120,988.9</b>	Cash & equivalents	21,461.6	18,371.9	44,629.6	105,164.1
Cost of goods sold	(613,804.9)	(816,981.1)	(817,257.4)	(844,284.2)	Accounts receivable	41,636.2	60,819.4	60,615.5	65,391.0
SG&A	(89,327.1)	(85,296.2)	(82,898.6)	(98,044.8)	Inventory	101,198.2	150,093.6	149,217.7	152,151.1
R&D	--	--	--	--	Other current assets	81,448.5	65,488.4	65,726.1	65,963.9
Other operating profit/(expense)	0.0	0.0	0.0	0.0	<b>Total current assets</b>	<b>245,744.5</b>	<b>294,773.3</b>	<b>320,188.8</b>	<b>388,670.1</b>
<b>EBITDA</b>	<b>139,573.5</b>	<b>176,586.1</b>	<b>177,790.8</b>	<b>239,678.0</b>	Net PP&E	626,745.4	678,394.8	721,613.1	800,230.9
Depreciation & amortization	(34,009.1)	(36,244.6)	(38,824.2)	(61,018.1)	Net intangibles	0.0	0.0	0.0	0.0
<b>EBIT</b>	<b>105,564.4</b>	<b>140,341.5</b>	<b>138,966.6</b>	<b>178,659.9</b>	Total investments	58,461.8	123,811.8	158,811.8	198,811.8
Interest income	6,829.2	1,500.0	2,500.0	5,000.0	Other long-term assets	0.0	0.0	0.0	0.0
Interest expense	(8,770.4)	(13,228.4)	(9,116.9)	(16,212.3)	<b>Total assets</b>	<b>930,951.7</b>	<b>1,096,979.8</b>	<b>1,200,613.7</b>	<b>1,387,712.8</b>
Income/(loss) from uncons. subs.	0.0	0.0	0.0	0.0	Accounts payable	121,668.7	162,633.8	161,632.2	161,493.4
Others	3,417.0	3,417.5	3,417.5	3,417.5	Short-term debt	53,498.5	47,233.0	62,233.0	62,233.0
<b>Pretax profits</b>	<b>107,040.2</b>	<b>132,030.6</b>	<b>135,767.2</b>	<b>170,865.1</b>	Other current liabilities	42,876.1	40,104.8	40,104.8	40,104.8
Income tax	(16,347.2)	(21,640.0)	(29,404.8)	(29,949.5)	<b>Total current liabilities</b>	<b>218,043.3</b>	<b>249,971.6</b>	<b>263,970.0</b>	<b>263,831.2</b>
Minorities	0.0	0.0	0.0	0.0	Long-term debt	165,157.6	218,593.0	240,008.7	275,008.7
<b>Net income pre-preferred dividends</b>	<b>90,693.0</b>	<b>110,390.6</b>	<b>106,362.4</b>	<b>140,915.6</b>	Other long-term liabilities	49,708.2	52,939.2	50,444.6	45,886.4
Preferred dividends	0.0	0.0	0.0	0.0	Total long-term liabilities	214,865.8	271,532.3	290,453.3	320,895.1
<b>Net income (pre-exceptionals)</b>	<b>90,693.0</b>	<b>110,390.6</b>	<b>106,362.4</b>	<b>140,915.6</b>	<b>Total liabilities</b>	<b>432,909.1</b>	<b>521,503.8</b>	<b>554,423.2</b>	<b>584,726.3</b>
Post-tax exceptionals	0.0	0.0	0.0	0.0	Common stock & premium	13,931.7	13,931.7	13,931.7	13,931.7
<b>Net income</b>	<b>90,693.0</b>	<b>110,390.6</b>	<b>106,362.4</b>	<b>140,915.6</b>	Other common equity	484,110.9	561,544.3	632,258.8	734,156.7
EPS (basic, pre-except) (Rs)	65.10	79.24	76.35	101.15	<b>Total common equity</b>	<b>498,042.6</b>	<b>575,476.0</b>	<b>646,190.5</b>	<b>748,088.4</b>
EPS (basic, post-except) (Rs)	65.10	79.24	76.35	101.15	Minority interest	0.0	0.0	0.0	54,898.1
EPS (diluted, post-except) (Rs)	65.10	79.24	76.35	101.15	<b>Total liabilities &amp; equity</b>	<b>930,951.7</b>	<b>1,096,979.8</b>	<b>1,200,613.7</b>	<b>1,387,712.8</b>
DPS (Rs)	10.00	11.00	12.00	13.50	<b>BVPS (Rs)</b>	<b>357.49</b>	<b>413.07</b>	<b>463.83</b>	<b>536.97</b>
Dividend payout ratio (%)	15.4	13.9	15.7	13.3	<b>Growth &amp; margins (%)</b>	<b>3/06</b>	<b>3/07E</b>	<b>3/08E</b>	<b>3/09E</b>
Free cash flow yield (%)	(5.2)	(2.4)	(0.1)	1.8	Sales growth	23.2	28.9	(0.3)	7.9
					EBITDA growth	12.7	26.5	0.7	34.8
					EBIT growth	21.9	32.9	(1.0)	28.6
					Net income growth	19.8	21.7	(3.6)	32.5
					EPS growth	19.8	21.7	(3.6)	32.5
					Gross margin	24.1	21.6	21.4	24.7
					EBITDA margin	17.3	16.9	17.1	21.4
					EBIT margin	13.1	13.5	13.4	15.9
					<b>Ratios</b>	<b>3/06</b>	<b>3/07E</b>	<b>3/08E</b>	<b>3/09E</b>
					ROE (%)	20.1	20.6	17.4	20.2
					ROA (%)	10.4	10.9	9.3	10.9
					ROACE (%)	14.8	15.8	12.9	15.5
					Inventory days	52.1	56.1	66.8	65.1
					Receivables days	18.3	17.9	21.3	20.5
					Payable days	74.3	63.5	72.4	69.8
					Net debt/equity (%)	39.6	43.0	39.9	28.9
					Interest cover - EBIT (X)	54.4	12.0	21.0	15.9
					<b>Valuation</b>	<b>3/06</b>	<b>3/07E</b>	<b>3/08E</b>	<b>3/09E</b>
					P/E (analyst) (X)	19.6	16.1	16.7	12.6
					P/B (X)	3.6	3.1	2.8	2.4
					EV/EBITDA (X)	7.1	11.5	11.5	8.4
					Dividend yield (%)	0.8	0.9	0.9	1.1
<b>Cash flow statement (Rs mn)</b>	<b>3/06</b>	<b>3/07E</b>	<b>3/08E</b>	<b>3/09E</b>					
Net income pre-preferred dividends	90,693.0	110,390.6	106,362.4	140,915.6					
D&A add-back	34,009.1	36,244.6	38,824.2	61,018.1					
Minorities interests add-back	0.0	0.0	0.0	0.0					
Net inc/(dec) working capital	(32,187.6)	(13,924.7)	(159.5)	(8,085.5)					
Other operating cash flow	(5,181.3)	(1,259.3)	(13,705.4)	(13,054.4)					
<b>Cash flow from operations</b>	<b>87,333.2</b>	<b>131,451.0</b>	<b>131,321.7</b>	<b>180,793.8</b>					
Capital expenditures	(94,273.1)	(98,706.8)	(92,031.5)	(98,813.7)					
Acquisitions	(32,364.3)	(65,350.0)	(35,000.0)	(40,000.0)					
Divestitures	169.5	0.0	0.0	0.0					
Others	5,159.1	1,500.0	2,500.0	5,000.0					
<b>Cash flow from investments</b>	<b>(121,308.8)</b>	<b>(162,556.8)</b>	<b>(124,531.5)</b>	<b>(133,813.7)</b>					
Dividends paid (common & pref)	(11,852.6)	(17,474.2)	(19,062.7)	(21,445.6)					
Inc/(dec) in debt	31,198.0	45,489.6	38,530.2	35,000.0					
Common stock issuance (repurchase)	4.9	0.0	0.0	0.0					
Other financing cash flows	0.0	0.0	0.0	0.0					
<b>Cash flow from financing</b>	<b>19,350.3</b>	<b>28,015.4</b>	<b>19,467.5</b>	<b>13,554.4</b>					
<b>Total cash flow</b>	<b>(14,625.3)</b>	<b>(3,090.3)</b>	<b>26,257.7</b>	<b>60,534.6</b>					

Note: Last actual year may include reported and estimated data.

Source: Company data, Goldman Sachs Research estimates.

## Analyst Contributors

### Nilesh Banerjee

nilesh.banerjee@gs.com

### Kelvin Koh, CFA

kelvin.koh@gs.com

### Durga Dath

durga.dath@gs.com

## Table of contents

<b>Investment view:</b> Added to Conviction Buy list; Rs1,660 target price	<b>3</b>
<b>Valuation:</b> Sum-of-the parts valuation shows 29% potential upside	<b>13</b>
<b>Risks to our view:</b> E&P project delay is the biggest risk	<b>17</b>
<b>Company profile:</b> Changing mix of businesses	<b>19</b>
<b>Disclosures</b>	<b>20</b>

EXPECTED NEWS FLOW/EVENTS		
DATE	EVENT	COMMENT
Second half of January, 2007	Quarterly results	We expect announcements on new hydrocarbon finds
Second half of January, 2007	Company confirmation of initial trends of Reliance Retail	We expect this may boost Retail option value in share price
February 2007	DGH approval of KG Basin oil commercialization plan	Development plan should give more clarity on production profile

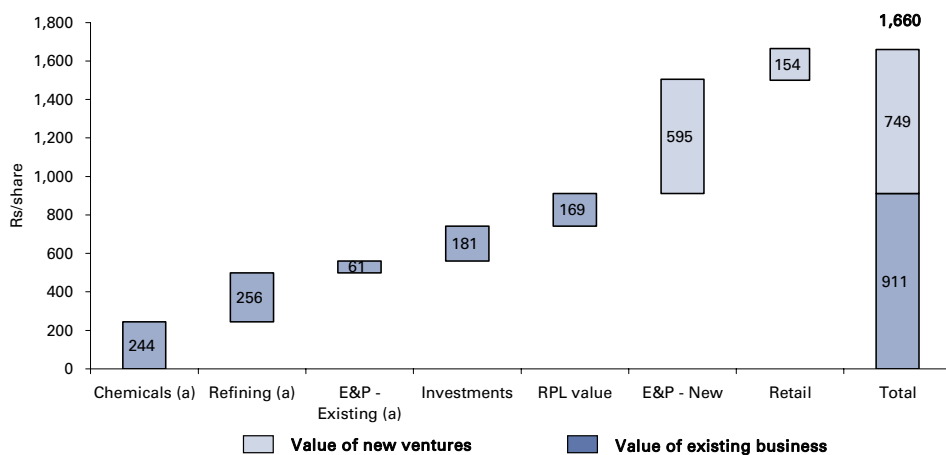
Source: Company data, Goldman Sachs Research estimates

The prices in the body of this report are based on the market close of January 5, 2007

## Investment view: Added to Conviction Buy list; Rs1,660 target price

We are transferring coverage of Reliance Industries to Nilesh Banerjee from Kelvin Koh, upgrading the stock to Buy from Neutral with a 12-month target price of Rs1,660/share (GDR: US\$74.64), and adding it to our Asia-Pacific Conviction Buy List. We value the company on sum-of-the parts methodology based on peak cycle valuation for refining, near-peak cycle valuation for the petrochemical business, and on DCF for the new ventures: E&P and organized retail.

**Exhibit 1: New E&P business largest contributor to our sum-of-the-parts valuation**  
Build-up of our Reliance SOTP valuation



(a) We have adjusted for net debt of refining, petrochemicals and existing oil & gas business.

Source: Goldman Sachs Research estimates.

## New ventures to drive stock performance

We believe the potential upside in the stock price would primarily be driven by the new ventures (E&P and organized retail). The new E&P business, in particular, should be a key driver for the stock price going forward. On the back of gas production from the prolific D-6 block in the KG Basin, we expect the E&P business will start generating higher EBITDA than each of Reliance's current core businesses (refining and petrochemicals) by FY2009E.

### Exhibit 2: Upstream to provide largest share of operating profit by FY2009E

Segmental breakdown of revenues and EBITDA for Reliance (Rs mn)

(Yr ending March)	FY06	FY07E	FY08E	FY09E	FY10E	FY11N
<b>Revenues</b>						
Chemicals	295,579	349,417	341,059	322,304	315,961	261,359
Refining & marketing	661,080	770,321	773,460	778,244	778,227	478,767
Others (incl. Upstream in FY06)	18,716	0	0	0	0	0
Upstream		23,733	28,086	130,816	219,622	260,383
Inter-divisional sales	(166,678)	(100,853)	(103,482)	(110,375)	(115,007)	(78,097)
<b>Total</b>	<b>808,696</b>	<b>1,042,619</b>	<b>1,039,123</b>	<b>1,120,989</b>	<b>1,198,804</b>	<b>922,411</b>
<b>EBITDA</b>						
Chemicals	64,573	81,662	72,532	48,764	34,560	67,238
Refining & marketing	63,025	77,477	84,147	87,024	84,846	29,235
Others (incl. Upstream)	14,676					
Upstream		17,446	21,112	103,890	176,470	219,433
Unallocated	(2,700)	—	—	—	—	—
<b>Total</b>	<b>139,574</b>	<b>176,586</b>	<b>177,791</b>	<b>239,678</b>	<b>295,875</b>	<b>315,906</b>

Note: Our estimates exclude earnings from Yemen oil, NEC-25 and CBM Sohagpur gas, KG Basin oil and Reliance Retail.

Source: Goldman Sachs Research estimates, company data.

Our target price implies a return potential of 29% from current levels. This is at the top end of consensus, likely due to our positive outlook on the potential for the company's E&P and organized retail businesses.

## We believe Reliance is not expensive at current levels

**Reliance stock is currently trading at a premium to its emerging market peers on near-term multiples.** However, we believe it would be misleading to conclude from this that Reliance is expensive, as we think the stock price already builds in some option value for the new ventures (E&P and organized retail) that have yet to start generating revenues.

We estimate the consensus option value built in the stock today is still too low at around Rs525, despite the fact the value has risen from around Rs350 in the last six months on more clarity as to the ventures' prospects. Of the Rs525, we estimate E&P and organized retail is around Rs365 with the remaining Rs160 coming from the equity value of Reliance's 75% holding in Reliance Petroleum.

**Our calculations show the market is factoring in the company's huge capex plans for the new ventures but not giving full value to the potential upside this expansionary capex can generate.** Based on company guidance, we estimate total capex at more than US\$12 bn from FY2007E till FY2010E, of which we assume around US\$8 bn would be for the new initiatives. If we deduct this US\$8 bn capex figure from Reliance's cash flows, the normalized DCF value for the core businesses (excluding new E&P and organized retail) would rise by Rs310 as of FY2008E.

Thus, the present value of capex in new initiatives is in line with the market's total estimated option value of Rs365 for new E&P and organized retail. Hence we estimate that the market, in effect, is only assigning a value of Rs55/share for Reliance's new ventures.

**Exhibit 3: Reliance does not appear expensive vs. emerging market peers after removing option value of new ventures**  
Comparative valuation of Reliance vs. global, regional and emerging market peers within our coverage

Ticker	GS rating	Price Jan 7	Mkt cap (US\$m)	EV/DACF (X)				P/E (X)				Yield (%)	06EV/proved Reserves US\$/boe	
				2006E	2007E	2008E	2009E	2006E	2007E	2008E	2009E			
<b>International majors</b>														
BP plc (US\$)	BP	Neutral	64.97	234,492	7.7	6.4	5.8	5.4	10.1	8.9	8.2	7.9	3.6	17.0
Chevron (US\$)	CVX	Neutral	70.55	148,657	5.8	5.5	5.2	4.9	8.8	8.5	8.8	8.9	2.8	12.6
Exxon Mobil (US\$)	XOM	Neutral	73.24	468,809	8.0	7.5	7.4	7.1	11.4	10.8	10.9	10.2	1.7	17.8
Royal Dutch Shell (US\$)	RDSa.AS	Buy	67.39	226,842	5.9	5.9	5.6	5.3	8.7	8.6	8.1	7.6	3.8	38.5
Total SA (EUR)	TOTF.PA	Neutral	52.75	166,333	7.5	7.0	6.5	6.2	9.6	9.3	8.8	8.7	3.6	20.2
<b>International majors median</b>					<b>7.5</b>	<b>6.4</b>	<b>5.8</b>	<b>5.4</b>	<b>9.6</b>	<b>8.9</b>	<b>8.8</b>	<b>8.7</b>	<b>3.6</b>	<b>17.8</b>
<b>Regional majors</b>														
ConocoPhillips (US\$)	COP	Buy	67.42	93,683	5.9	5.3	4.8	4.4	6.8	7.7	7.4	7.1	2.1	14.9
ENI (EUR)	ENI.MI	Buy	24.93	122,140	5.8	5.6	5.3	4.8	8.8	8.8	8.9	8.9	5.2	20.1
Occidental (US\$)	OXY	Neutral	45.45	36,063	5.6	4.9	4.5	4.0	8.8	8.1	7.8	7.0	1.8	14.4
Repsol YPF (EUR)	REP.MC	NR	26.04	41,314	6.1	6.3	6.0	5.6	9.9	11.3	11.2	10.5	2.6	17.5
Marathon (US\$)	MRO	Sell	85.92	29,788	5.2	5.0	4.5	4.2	6.6	7.5	6.6	6.2	2.0	24.3
<b>Regional majors median</b>					<b>5.8</b>	<b>5.3</b>	<b>4.8</b>	<b>4.4</b>	<b>8.8</b>	<b>8.1</b>	<b>7.8</b>	<b>7.1</b>	<b>2.1</b>	<b>17.5</b>
<b>Emerging market oils</b>														
CNOOC (HK\$)	0883.HK	Buy	7.05	37,122	6.8	7.1	5.4	4.4	10.1	11.0	8.4	7.2	3.1	15.7
GAIL (Rs) (a)	GAIL.BO	Neutral	276	5,269	8.4	7.8	8.3	8.4	10.2	10.3	11.4	11.8	3.6	NA
ONGC (Rs) (a)	ONGC.BO	Buy	896	43,328	6.4	5.8	5.3	4.7	9.4	8.8	8.6	8.1	4.5	6.0
Petrobras (US\$)	PBR	Neutral	95.41	100,407	5.6	5.9	5.7	NA	8.2	7.8	7.6	7.5	3.3	9.9
PetroChina (HK\$)	0857.HK	Neutral	10.46	240,072	7.1	6.7	6.2	6.2	12.2	11.7	10.6	11.0	3.7	12.2
PTT (Bt)	PTT.BK	Neutral	192	15,029	4.6	4.9	4.5	4.4	6.0	6.9	6.5	6.7	5.0	15.5
Sinopec 'H' share (HK\$)	0386.HK	Sell	7.31	81,256	8.6	7.5	6.4	6.5	12.3	10.4	9.2	10.0	2.3	27.1
Sinopec 'A' share (Rmb)	600028.SS	Sell	9.93	110,379	11.1	9.5	8.2	8.3	16.6	14.1	12.5	13.5	2.3	34.8
Reliance (Rs) - Actual	RELI.BO	Buy*	1,289	40,588	13.2	14.9	9.9	7.5	16.3	16.9	12.7	10.1	0.9	24.6
Reliance (Rs) - Adjusted (b)	RELI.BO	Buy*	1,289	40,588	8.5	9.6	6.4	4.7	9.6	10.0	7.5	6.0	1.6	24.6
Reliance (US\$) - GDR	RELIq.L	Buy*	58.30	40,588	13.2	14.9	9.9	7.5	16.3	16.9	12.7	10.1	0.9	24.6
<b>Emerging market oils median</b>					<b>7.1</b>	<b>7.1</b>	<b>6.2</b>	<b>5.5</b>	<b>10.1</b>	<b>10.3</b>	<b>8.6</b>	<b>8.1</b>	<b>3.3</b>	<b>15.6</b>

(a) For fiscal year-ended following March (i.e., fiscal 2007 appears as 2006).

(b) Reliance share price has been reduced by option value of Rs525.

\* Denotes stocks on our Conviction Buy List.

Source: Goldman Sachs Research estimates.

**Exhibit 4: Current price factors in impact of high capex but not full value accretion potential, in our view**

Reliance's capex plans vs. cash flows (Rs mn)

(in Rsmn)	FY2006	FY2007E	FY2008E	FY2009E	FY2010E	Total FY07-10E
<b>Operating Cash flows</b>	<b>87,333</b>	<b>131,451</b>	<b>131,322</b>	<b>180,794</b>	<b>239,435</b>	<b>683,002</b>
<b>Capex</b>						
Refining	18,280	20,000	11,000	16,000	11,000	58,000
Petrochemicals	28,380	29,604	5,000	5,000	10,000	49,604
Upstream	23,976	45,713	70,063	70,063	69,055	254,893
Marketing	8,500	3,390	5,469	7,751	9,705	26,315
<b>Investments</b>						
RPL	27,000	40,350	-	-	-	40,350
Retail	2,151	25,000	25,000	25,000	25,000	100,000
Others	631	-	10,500	15,000	20,000	45,500
<b>Total</b>	<b>108,918</b>	<b>164,057</b>	<b>127,032</b>	<b>138,814</b>	<b>144,760</b>	<b>574,662</b>

Note: Figures mentioned do not include cash flows from the organized retail venture, NEC25, CBM Sohagpur, KG Basin Oil and overseas oil & gas assets.

Source: Goldman Sachs Research estimates.

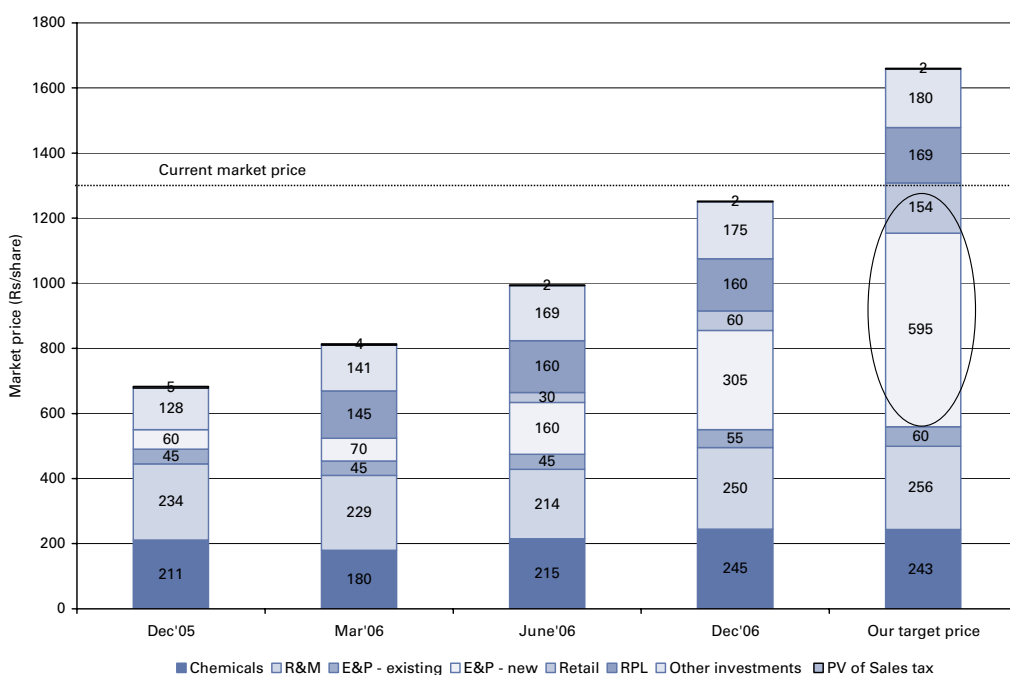
### Continuous rerating of new ventures is driving stock performance

While alleviation of market concerns about an early downturn in the petrochemical and refining cycles has helped stock performance, the real upside in the past year has come from: the listing of Reliance Petroleum (May 2006), Reliance’s announcement of organized retail plans, and more clarity on the E&P business. We believe E&P and organized retail should continue to rerate the stock in the medium term.

The next phase of the rerating process has already started on the back of recent news that D-6 gas would realize a well-head price of US\$4.5/mmBtu against our earlier estimated price of US\$2.34/mmBtu.

As Exhibit 5 shows, our SOTP estimate includes Rs749 per share value from the new E&P and organized retail businesses, and the existing businesses contribute Rs911 per share.

**Exhibit 5: We expect rerating of new ventures to drive Reliance’s share price**  
 Movement of our sum-of-the-parts breakdown over time



Note: Net debt has been adjusted in the individual segments.

Source: Goldman Sachs Research estimates.

### New E&P business is of materially higher value than the market is factoring in

While Reliance has interests in a total of 42 domestic blocks (after NELP VI) awarded during the various rounds of New Exploration Licensing Policy (NELP) and Coal Bed Methane (CBM) auctions, we believe three upstream assets, D-6, NEC-25 and CBM-Sohagpur, will likely drive Reliance’s valuations in the medium term. Moreover, we believe exploration activities in the recently awarded blocks such as D-4 are a source of further potential upside, although we have not included this potential upside in our target price.

**Exhibit 6: D-6 is the main driver for Reliance's E&P at present**

## Values of Reliance's key E&amp;P properties

Property	RIL's stake	Reserves (tcf/mnbbbls)	Comments	Rs/share
K-G Basin D-6	90%	50.0 (a)	In place reserves	388
K-G Basin Oil	90%	1,600	In place reserves	124
NEC-25, Orissa	90%	2.30	P2 reserves; potential to go up to 8.2tcf	44
CBM, Sohagpur	100%	3.75	In place reserves	39
Mahanadi D-4 (b)	85%	NA	This could be potentially bigger than D-6	-
<b>Total</b>				<b>595</b>

(a) Our estimate of 50 tcf compares with the company's announcement of 35 tcf.

(b) We do not include this in our 12-month price target of Rs1,660.

Source: Goldman Sachs Research estimates, company data.

We estimate the total value of the new E&P business at Rs595/share. Of this, we value D-6 alone at Rs388/share, and the NEC-25 and CBM-Sohagpur blocks combined at Rs83/share. Based on the KG Basin oil reserve, disclosed by the company so far, we value this at Rs124/share for Reliance's 90% share at EV/bbl of US\$9.0 and a recovery factor of 30%.

**D-4 offers greatest potential upside to our target price**

As per Reliance's minority partner Niko Resources' (NKO.TO, NC) disclosures, the potential reserves in D-4 could be even bigger than D-6. The D-4 Block has a similar depositional environment and play type to the D-6 and NEC-25 blocks. Although we have not assigned any value to it in our target price, we believe that more exploration in the block and any potential discoveries would rerate the Reliance stock further in future.

**Similar to D-4, we assign no value currently to Reliance's foreign properties** such as Block 9 in Yemen (25% interest) and Block 18 in Oman (100% interest). The Oman offshore asset just commenced seismic studies, and independent consultants (the company has not disclosed which these are) estimate the Yemen asset to have recoverable reserves of 50 mnbbbl of oil. It started producing 2,000 b/d from December 2005, which has now risen to 10,000 b/d. We expect the production to reach 20,000 b/d in the next two years. Sizeable discovery in Reliance's overseas ventures could potentially lead to further stock upside.

**KG Basin D-6: Core holding containing Reliance's largest find so far**

Reliance's core E&P asset is the field KG-DWN-98/3, also known as D-6, in India's eastern offshore. Independent consultant Gaffney, Cline & Associates (GCA) recently estimated D-6 in-place reserves of 35.3 tcf, almost 200% higher than DeGolyer & MacNaughton's (D&M) initial estimates of 11.3 tcf in 2005. As per recent company estimates, the in-place gas reserve in D-6 could be as high as 50 tcf.

Moreover, the GCA estimates do not include the deeper hydrocarbons and the Cretaceous interval, which have shown further hydrocarbon bearing potential, as exhibited by the initial well MA-1, which struck a 26-meter net oil/gas pay zone, and a 72-meter net gas/condensate zone.

Recently, Niko Resources has announced an even bigger hydrocarbon find in the MA-2 well of a gross hydrocarbon column of 194 meters consisting of 170 meters of gas and 24 meters of oil in the Cretaceous section. This is the biggest hydrocarbon find to date in the D-6 block. We believe that there is further upside to the reserve potential in KG Basin as more exploration and appraisal drilling take place in these locations.

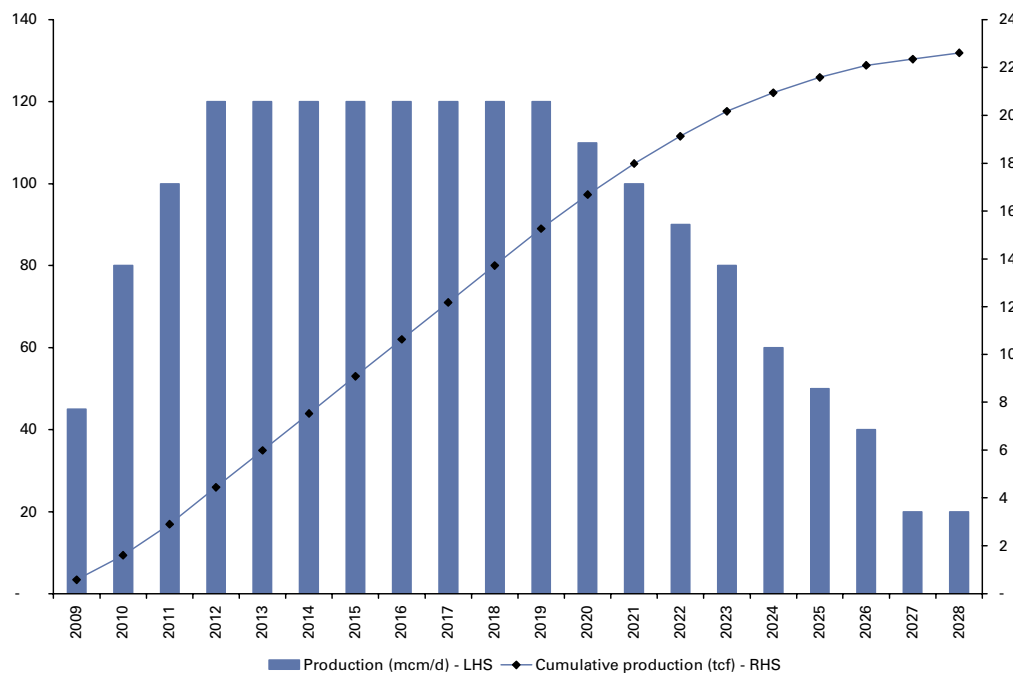
**We estimate peak D-6 production will reach 120 mmscmd (capex of US\$8.7 bn) with realization of US\$4.5-US\$5.0/mmBtu (in line with development plan and Ravva field).**

The revised development plan Reliance recently submitted to the Directorate General of Hydrocarbons (DGHI) mentioned potential in-place reserves of 1.6 bnbbbl of oil and 9 tcf of gas in the Cretaceous zone in the KG Basin. This was before the MA-2 well struck more oil and gas. The plan envisages beginning gas production in D-6 from 2HFY09. Based on the

plan, we estimate peak production to touch 120 mmscmd against current market expectation of 80 mmscmd. The total recovery of gas in D-6, in our estimate, works out to 23 tcf. We have built in gas price realizations of US\$4.5-US\$5/mmBtu, in line with the realization of gas from the Ravva field, which is geographically close to D-6.

**Exhibit 7: Peak production of 120 mmscmd and total recovery of 23 tcf in D-6**

Estimated production profile of KG Basin D-6 block



Source: Goldman Sachs Research estimates.

**Exhibit 8: We expect Reliance to execute the E&P projects on time**

Timeline of Reliance’s ongoing E&P projects

Field	Nature of project	Timeline
Panna-Mukta	Expansion for higher oil production	FY07E
Tapti	Increase in gas production	FY08E
KG Basin	Start gas production	FY09E
CBM, Sohagpur	Start gas production	FY09E
KG Basin	Start Oil production	FY09E
NEC-25, Orissa	Start gas production	FY10E

Source: Goldman Sachs Research estimates.

**We base our positive outlook on future exploration success on Reliance’s outstanding record in this new business.** So far it has drilled 32 wells, meeting with success in 25. This high success rate relative to industry norms is noteworthy given that Reliance is a relatively new player in this business and that it is mainly engaged in deepwater exploration. Management expects to carry forward this success to its future explorations as well; however, we think it could be challenging to sustain such high success rates.



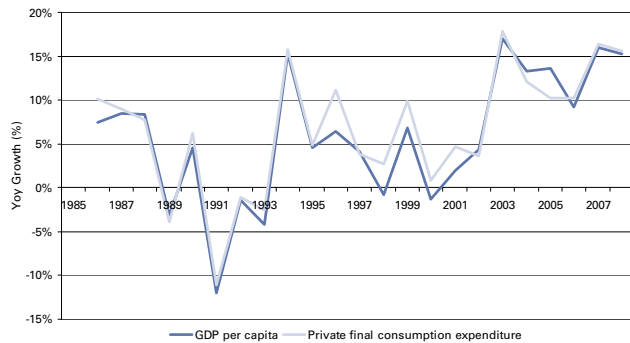
**Organized retail: Second new initiative – could add significant value**

Reliance is targeting opportunities in the retail sector, which we believe is likely to witness sharp growth in view of robust economic growth, rising income levels and current low penetration of the organized sector. We believe success here will hinge on higher level of per capita discretionary spending and Reliance executing planned rollouts in a timely fashion.

**Strong economic growth is a key driver**

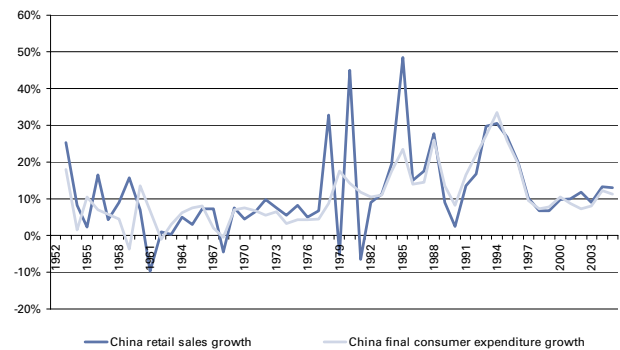
Our Global Economics Research Team’s BRICS hypothesis expects the Indian economy to become the third-largest economy after the US and China by 2030, implying real GDP growth of 5.5%-6.0% per annum. Such growth would lead to robust Indian per capita income growth, resulting in a higher level of private final consumption expenditure. The Chinese experience indicates that retail sales growth is highly correlated with consumption expenditure growth. We expect the Indian market to follow a similar trend going forward, given its favorable demographic mix.

**Exhibit 9: Growth of Indian GDP per capita and final consumption expenditure highly correlated (R<sup>2</sup>=99%)**



Source: Goldman Sachs Research estimates

**Exhibit 10: India likely to follow similar pattern to China**  
China retail sales growth vs. final consumption expenditure growth



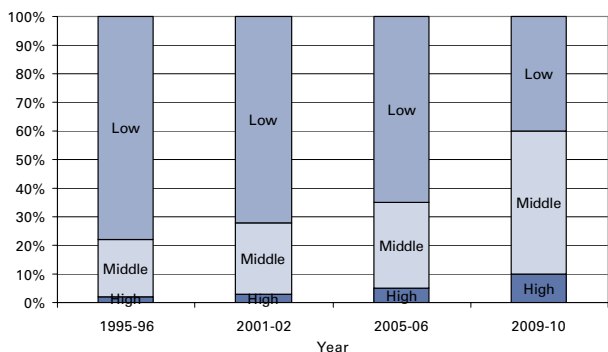
Source: Goldman Sachs Research estimates

**Improving incomes, demographics to swell middle income group to 50% by 2010**

We expect the middle income class to comprise around 50% of India’s population by 2010. India also has a strong demographic advantage in terms of the expected average age of the population going forward. According to market studies, 44% of the Indian population is less than 19 years of age; when the population grows to 1.3 bn, 30% of Indians would be less than 35 years of age. The studies also indicate that the workforce is likely to increase by 71 mn by 2010E and 200 mn by 2025E. The company estimates that, compared with today’s levels, the number of people with annual incomes over US\$3,000 would increase 14 times in the next ten years, leading to high levels of discretionary expenditure that would likely propel retail growth.

**Exhibit 11: Middle income segment to constitute 50% of population by 2010E**

Shift in demographic mix in India

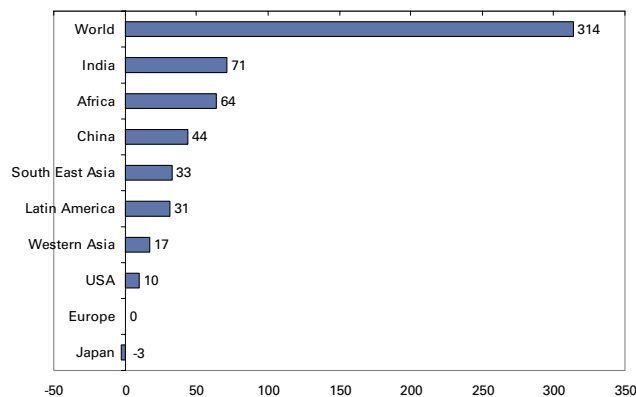


Low income: <US\$2000 p.a, Middle: US\$2,000-4,500p.a., High:>US\$4,500p.a.

Source: CRIS INFAC, Goldman Sachs Research estimates.

**Exhibit 12: Workforce to increase from 560 mn to 760 mn by 2025**

Addition to working age population by 2010E



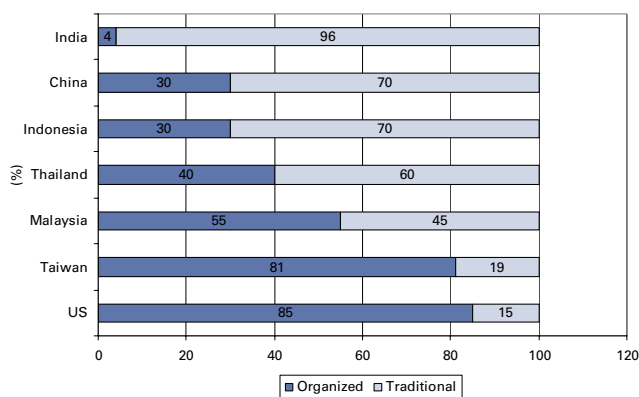
Source: E&Y, Goldman Sachs Research estimates.

**Low organized retail penetration is an opportunity**

Independent market research estimates put organized retail penetration in India at around 4%, with the vast majority of 96% being serviced by unorganized local stores. This presents a good opportunity for early entrants to grab market share in this quickly evolving sector, which we believe is likely to foster growing competition from new entrants like the Bharti group and the possibility of foreign players coming into the market, apart from the existing retailers like the Future group and Shoppers Stop. However, based on the increasing number of players, regulatory reforms and higher expected investments in retail, we forecast India’s organized retail market to grow to US\$60 bn by FY2010E and we believe there will be enough space for multiple national level players to co-exist.

**Exhibit 13: Organized retail only 4% of India retail market at present**

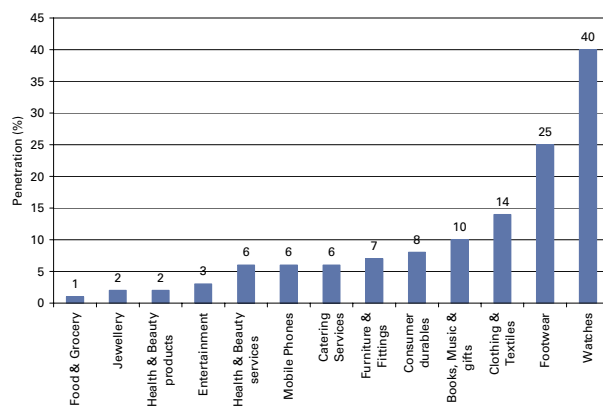
Penetration of organized retail across countries



Source: E&Y, Goldman Sachs Research estimates.

**Exhibit 14: Food/grocery most underpenetrated vertical**

Sector wise penetration of Indian organized retail industry



Source: Images, KSA Technopak.

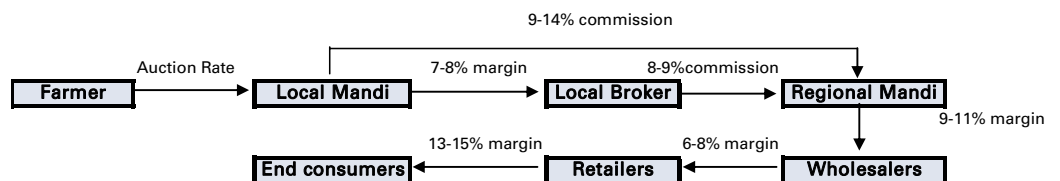
Of the various retail verticals, the penetration level of organized retail for food and grocery division is the lowest at a meager 1% (see Exhibit 14). Therefore, it has become the starting point of Reliance’s retail expansion. The company intends to claim an early mover advantage by opening as many stores as possible by leveraging its supply chain infrastructure. This is evident from its recent acquisition of Adani retail, which gives it instant access to 54 retail outlets across 13 cities in the state of Gujarat. The company has already commenced its vegetable store format “Reliance Fresh”, a chain of neighborhood convenience stores, dominated by private labels with very little shelf space for branded products.

**First key advantage: Shorter supply chain = higher margins**

**The key advantage for Reliance Retail would be its bigger role in the supply chain of the food and vegetable business by negotiating directly with the farmers.** According to Reliance, it plans to enter exclusive farming contracts with the farmers to supply fresh produce to its stores and intends to have 7 large wholesale terminals and 150 distribution centers. This shorter value chain would likely lead to Reliance getting higher margins than pure retailers. Pending further clarity, we have not built this potential into our current forecast period.

**Exhibit 15: Middlemen dominate traditional supply chain; high markup between farmer and consumer**

Traditional supply chain



Note: “Mandi” refers to market.

Source: KSA Technopak.

**Exhibit 16: Fewer links in organized retail chain can offer Reliance significantly higher margins**

Reliance retail supply chain



Source: Goldman Sachs Research estimates.

**Developing private labels with pan-India presence; rollout execution will be a key driver.** We believe that Reliance’s strategy is to become a pan-India force by saturating each market in turn with several retail outlets, before moving to other regions. Reliance intends to open 3,000 outlets (around 20 mn sq ft) by June 2007 with a long-term plan to cover 1,500 towns with 100 mn sq ft of floor space. Our forecasts only build in 2,500 outlets by FY2008E, as we factor in possible teething problems for the new business.

Reliance is actively involved in brand creation by developing its own private labels and also selling them at the traditional “kirana” (unorganized) stores in direct competition with the goods from prominent fast-moving consumer goods (FMCG) companies. It is now planning to revive its private label ‘Vimal’ for selling premium clothing from its retail outlets.

**Second key advantage: Low risk retail execution**

In our view, execution risk is significantly reduced by Reliance’s previous experience in retail (Reliance Web Worlds for telecom venture and joint venture with state-owned “Sahakari Bhandar” chain in the state of Maharashtra) and the experienced team that it has hired to run this new venture.

**Exhibit 17: We expect more than 100mn sq ft of operation by FY2015E**

	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Sales (Rs. mn)	41,745	139,183	289,603	443,049	569,956	683,634	795,023	923,274	1,070,562
Sq.feet in Operation (in mn)	15	37	62	76	86	91	96	101	107
Sales per Sq feet (Rs.)	4,600	5,290	5,819	6,401	7,041	7,745	8,520	9,372	10,309
EBITDA margin	3%	6%	7%	7%	7%	7%	7%	6%	6%
Net profit margin	1%	3%	3%	3%	3%	3%	3%	2%	2%

Source: Goldman Sachs Research estimates.

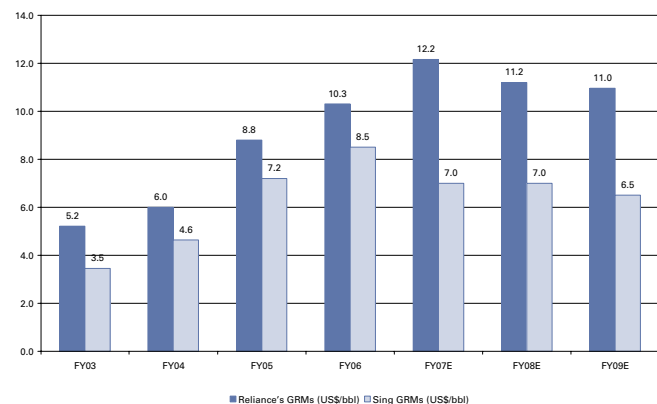
**Core businesses close to their peak cycles**

**Petrochemical cycle to move into downcycle; refinery margins to decline gradually.**

We expect the refining cycle to start declining from FY2008E, though the fall in refining margin should be gradual. Reliance’s refinery should continue to earn US\$3.5-US\$4.0/bbl premium to our Singapore GRM assumptions owing to the high level of complexity. On the petrochemical side we expect margins to decline from FY2007E onwards. The decline, however, is likely to be modest till 2009 due to the delay in upcoming Middle East capacity as a result of technical manpower shortage and technology transfer issues.

However, we believe this decline will not greatly impact Reliance’s earnings as, by FY2010E, meaningful operating profit contribution from the E&P business is likely to largely offset the impact of this cyclical downside.

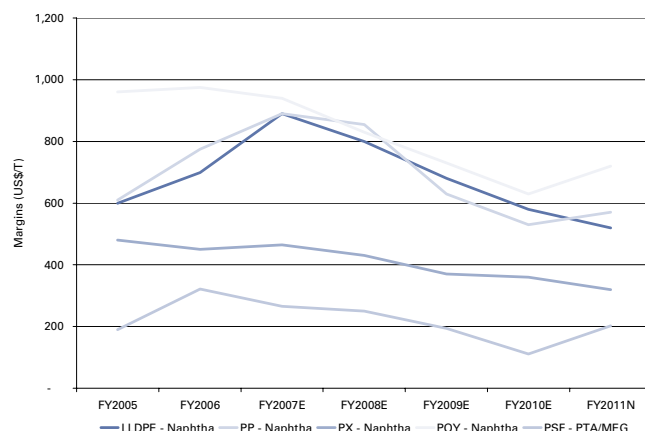
**Exhibit 18: Reliance refining margin premium over Singapore GRM to continue**



Source: Goldman Sachs Research estimates, Company data.

**Exhibit 19: We build in petrochemical margin decline from FY2007E**

Petrochemical margin trend



Source: Goldman Sachs Research estimates.

## Valuation: Sum-of-the parts valuation shows 29% potential upside

We use SOTP methodology to value Reliance as we believe that it is the best method to value a company that has such diverse businesses with different earnings drivers. Our valuation produces a 12-month target price of Rs1,660/share (GDR: US\$74.64), to which E&P contributes 40%, or a total of Rs656 (after adjusting for net debt).

### Exhibit 20: Upstream contributes 40% of our 12-month Rs1,660 target price

Details of our Reliance SOTP valuation

	Valuation base (Rs bn)		Multiple (X)		EV (Rs bn)	Share value (Rs)
	Other	EBITDA	Multiple	EV/EBITDA		
Chemicals		73		6.0	435	312
Refining & Marketing		84		5.5	463	332
Oil and gas—producing		21		4.5	95	68
Oil and gas—developing (DCF-based) (a)	656	—	100%	—	656	471
KG Basin Oil	173		100%	—	173	124
Organised Retail (DCF-based)	214		100%		214	154
Investments						
RIL treasury shares (at mkt value)	215	—	100%	—	215	154
Reliance Petroleum Limited	315		75%		236	169
Others (IPCL, others)	35	—	100%	—	35	25
<b>Total</b>					<b>2,523</b>	<b>1,811</b>
PV of refining division's future sales tax incentives					2	2
<b>Total value</b>					<b>2,525</b>	<b>1,812</b>
Net debt (b)					213	153
Implied equity value					2,312	1,660
<b>Implied value of share</b>						<b>1,660</b>

(a) We value the KG D-6 gas find on DCF and offshore Orissa (NEC-25) and CBM discoveries using KG D-6's valuation.

(b) Net debt excludes the debt towards initial investment in RPL and investment in Reliance Retail till FY2008E

Source: Goldman Sachs Research estimates.

### Exhibit 21: We estimate potential bear case scenario upside of 11% and bull case of 53% vs. our base case of 29%

Reliance scenario analysis, Rs/share

Sum-of-parts Component	Bear Case	Base Case	Bull Case	Comments
Chemicals	292	312	337	Changes in chemical margin assumptions by US\$50-60/ton
Refining & Marketing	267	332	372	Loss of retail market share, lower GRM (bear), Higher GRM (bull)
Oil and gas—producing	68	68	68	No Change
Oil and gas—developing (DCF-based)	421	471	589	Delay in production in D-6 (bear), 50% risked value for D-4 (bull)
KG Basin Oil	94	124	196	EV/boe of US\$7.5 (bear), 2bnbbbls of oil, EV/boe of US\$11 (bull)
Organised Retail (DCF-based)	94	154	214	Slower ramp up in floorspace (bear), higher rev/sqft (bull)
Investments				
RIL treasury shares (at mkt value)	154	154	154	
Reliance Petroleum Limited	169	169	169	No change as target valuation already at normalised prices
Others (IPCL, others)	25	25	25	
<b>Total</b>	<b>1,585</b>	<b>1,811</b>	<b>2,126</b>	
PV of refining division's future sales tax incentives	2	2	2	
<b>Total value</b>	<b>1,587</b>	<b>1,812</b>	<b>2,127</b>	
Net debt	153	153	153	
<b>Implied value of share</b>	<b>1,434</b>	<b>1,660</b>	<b>1,975</b>	
<b>Upside /(Downside)</b>	<b>11%</b>	<b>29%</b>	<b>53%</b>	

Source: Goldman Sachs Research estimates.

Given in-place reserves of 50 tcf of gas and total development capex of US\$8.7 bn, we estimate the D-6 field will likely contribute Rs388/share to the stock price implying EV/boe of US\$3.22. The in-place oil reserve of 1.6 bn bbl would be another Rs124/share even at EV/boe of US\$9.0. The reserves of the NEC-25 and CBM fields would make up the

remaining portion of our total estimated value of Rs595/share for the new upstream businesses.

## Valuation of individual business segments

### New E&P business valued at Rs595/share

We use DCF to value KG Basin, assuming total development capex of US\$8.7 bn till FY2015E and a peak production rate of 120 mmscmd. The cumulative production in our model is around 23 tcf, against in-place reserve of 50 tcf. We assume the maximum gas realization at US\$5.00/mmBtu, which is equal to the current realization of Ravva gas. We assume the total number of years of production at 20. Based on these assumptions, we estimate the total value of D-6 gas business at US\$13.5 bn, implying a value of Rs388 per share of Reliance.

### Exhibit 22: We value D-6 at Rs388 per Reliance share

Details of KG Basin D-6 DCF valuation (Rs mn)

	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E
<b>Production (mcm/d)</b>	<b>45</b>	<b>80</b>	<b>100</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>110</b>	<b>100</b>	<b>90</b>	<b>80</b>	<b>60</b>	<b>50</b>	<b>40</b>	<b>20</b>	<b>20</b>
Production (bcm)	16	29	37	44	44	44	44	44	44	44	44	40	37	33	29	22	18	15	7	7
Cumulative production (bcm)	16	46	82	126	170	214	257	301	345	389	433	473	509	542	571	593	611	626	633	641
Cumulative production (tcf) - RHS	1	2	3	4	6	8	9	11	12	14	15	17	18	19	20	21	22	22	22	23
Producer price (US\$/mbtu)	4.3	4.5	4.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
<b>Revenues</b>	<b>2,513</b>	<b>4,730</b>	<b>6,209</b>	<b>7,823</b>	<b>7,884</b>	<b>7,884</b>	<b>7,884</b>	<b>7,884</b>	<b>7,884</b>	<b>7,884</b>	<b>7,884</b>	<b>7,227</b>	<b>6,570</b>	<b>5,913</b>	<b>5,256</b>	<b>3,942</b>	<b>3,285</b>	<b>2,628</b>	<b>1,314</b>	<b>1,314</b>
Cost petroleum entitlement	2,513	4,112	1,921	2,124	1,627	1,627	1,627	1,621	1,621	1,621	1,621	1,494	1,367	1,241	1,114	860	734	607	353	353
Profit petroleum entitlement	-	618	3,859	4,844	4,380	939	939	939	939	939	939	860	780	701	621	462	383	303	144	144
Incidental income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
less Production costs	(275)	(488)	(610)	(732)	(732)	(732)	(732)	(732)	(732)	(732)	(732)	(671)	(610)	(549)	(488)	(366)	(305)	(244)	(122)	(122)
less Royalty	(126)	(237)	(310)	(391)	(394)	(394)	(788)	(788)	(788)	(788)	(723)	(657)	(591)	(526)	(394)	(329)	(263)	(131)	(131)	
<b>Pre-tax net cash income</b>	<b>2,113</b>	<b>4,006</b>	<b>4,859</b>	<b>5,844</b>	<b>4,880</b>	<b>1,439</b>	<b>1,439</b>	<b>1,039</b>	<b>1,039</b>	<b>1,039</b>	<b>960</b>	<b>880</b>	<b>801</b>	<b>721</b>	<b>562</b>	<b>483</b>	<b>403</b>	<b>244</b>	<b>244</b>	
less tax	-	-	-	-	-	-	350	350	350	350	323	296	270	243	189	162	136	82	85	
<b>Net cash income</b>	<b>2,113</b>	<b>4,006</b>	<b>4,859</b>	<b>5,844</b>	<b>4,880</b>	<b>1,439</b>	<b>690</b>	<b>690</b>	<b>690</b>	<b>690</b>	<b>637</b>	<b>584</b>	<b>531</b>	<b>479</b>	<b>373</b>	<b>320</b>	<b>267</b>	<b>162</b>	<b>159</b>	
Exploration costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development costs	1,250	1,100	1,000	1,000	500	500	500	100	100	100	100	100	100	100	100	100	100	100	100	100
Investment	1,250	1,100	1,000	1,000	500	500	500	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Free cash flow</b>	<b>863</b>	<b>2,906</b>	<b>3,859</b>	<b>4,844</b>	<b>4,380</b>	<b>939</b>	<b>939</b>	<b>590</b>	<b>590</b>	<b>590</b>	<b>537</b>	<b>484</b>	<b>431</b>	<b>379</b>	<b>273</b>	<b>220</b>	<b>167</b>	<b>62</b>	<b>59</b>	
<b>Discounted cash flow</b>	<b>784</b>	<b>2,401</b>	<b>2,899</b>	<b>3,309</b>	<b>2,720</b>	<b>530</b>	<b>482</b>	<b>275</b>	<b>250</b>	<b>227</b>	<b>207</b>	<b>171</b>	<b>140</b>	<b>114</b>	<b>91</b>	<b>59</b>	<b>44</b>	<b>30</b>	<b>10</b>	<b>9</b>
Year discounted	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount rate	10.0%																			
<b>Present value of free cash flow</b>	<b>13,502</b>																			
Reliance's share of project	90%																			
<b>Value per share of RIL (Rs)</b>	<b>388</b>																			
IRR	39%																			
<b>Implied EV/boe (US\$)</b>	<b>3.22</b>																			

Note: We expect production to begin in June 2008.

Source: Goldman Sachs Research estimates.

### Exhibit 23: We believe potential upside remains in terms of future gas realization

Key assumptions used in D-6 valuation

Total in-place reserve (tcf)	50.0
Cumulative production (tcf)	23.0
Maximum gas price (US\$/mmBtu)	5.00
Total capex (US\$m)	8,700
Peak production (mmscmd)	120
Number of years of production	20
Discount rate	10%

Source: Goldman Sachs Research estimates.

**Exhibit 24: Further KG basin upside could follow more exploration/appraisal drilling**  
Valuation of KG basin crude oil

In place oil reserves (mn bbl)	1,600
Recovery factor	30%
Recoverable Oil reserves (mn bbls)	480
<b>EV/boe of Oil (US\$)</b>	<b>9.0 (Asian median is US\$10.3/boe)</b>
EV of Oil reserves (US\$ mn)	4,320
Reliance's 90% stake (US\$/mn)	3,888
<b>Value Per share of RIL (Rs)</b>	<b>124</b>

Source: Goldman Sachs Research estimates.

We have valued KG Basin oil at Rs124 per share and believe that more exploration could lead to further upside here. We have valued the NEC-25 and CBM-Sohagpur fields based on the D-6 valuation, adjusted for their individual recoverable reserves. The combined value of these two fields is Rs83 per share. Therefore, the total value of the new E&P business works out to Rs595 per share.

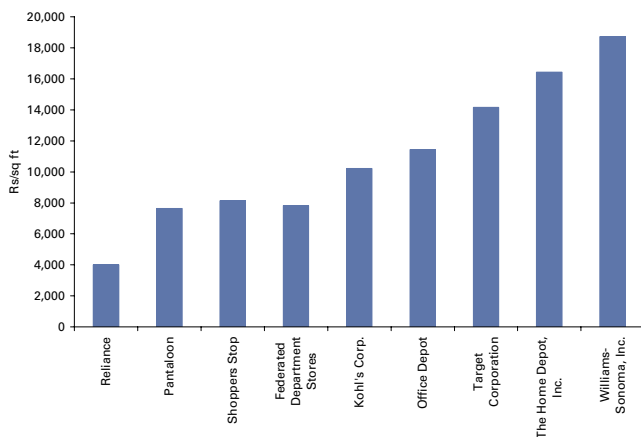
**Organized retail valued at Rs154/share**

We value Reliance’s organized retail business at Rs154/share using DCF analysis but we expect further potential upside to come from increased visibility on project execution.

We model an EBIT margin of only 4%-5% throughout our explicit forecast horizon for Reliance’s retail business vis-à-vis 6%-7% for global peers, reflecting increasing competition in a nascent industry. We assume revenue/sq ft of Rs4,500-Rs5,000 in the initial years rising to Rs10,000/sq ft only in the later years with increasing economy of scale and improving product mix. This is not only lower than the established global players but also than comparable retail companies in China (current average of Rs6,500-Rs11,000/sq ft).

**Exhibit 25: Our sales assumptions may be conservative**

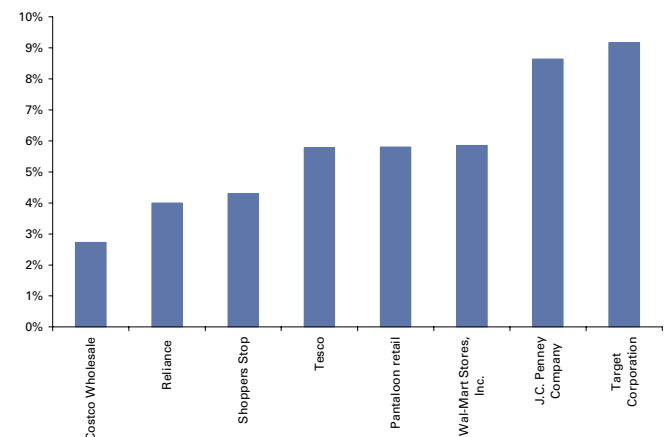
Global retailers’ average sales per sq ft in 2007E-10E



Source: Goldman Sachs Research estimates.

**Exhibit 26: We estimate Reliance to have 4% margin**

Global retailers’ estimated operating margin in 2009E-



Source: Goldman Sachs Research estimates.

**We believe that timely and successful retail business execution will lead to further potential share price upside** in the form of higher revenue per square foot and higher operating margin. While revenue per square foot would hinge on higher footfalls and

improving product mix, higher margins would likely result from Reliance sourcing food and vegetables directly from the farmers, thereby shrinking the length of the value chain.

**Exhibit 27: We estimate the value of Reliance Retail to be Rs154 per share**  
Reliance Retail DCF valuation

Year	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Operating Cash flow (Rs mn)	220	1,110	6,458	15,349	23,482	30,208	37,395	40,864	47,456	53,260
Yoy growth		405%	482%	138%	53%	29%	24%	9%	16%	12%
Capex (Rs mn)	(20,000)	(65,000)	(65,000)	(70,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Decrease/(increase) in working capital (Rs mn)	(550)	(1,537)	(4,176)	(6,769)	(4,690)	(5,076)	(1,129)	(3,899)	128	(136)
Free cashflow (Rs mn)	(20,330)	(65,427)	(62,718)	(61,420)	13,792	20,131	31,266	31,966	42,584	48,124
<b>Discounting back to year-end FY2008 (Rs mn)</b>	<b>(20,330)</b>	<b>(65,427)</b>	<b>(58,133)</b>	<b>(52,769)</b>	<b>10,983</b>	<b>14,860</b>	<b>21,391</b>	<b>20,271</b>	<b>25,031</b>	<b>26,220</b>
Terminal value calculation					Terminal Growth					
Present value @ year-end (Rs mn)	(77,902)			<b>154</b>	3.0%	3.5%	4.0%	4.5%	5.0%	
Terminal value @ year-end FY2016E (Rs mn)	701,668			7.4%	184	229	288	372	497	
PV of terminal value @ year-end (Rs mn)	382,298		<b>WACC</b>	7.9%	95	121	153	195	252	
FCFF	304,396			8.4%	60	79	103	133	173	
Less: Net Debt	90,000			9.0%	25	39	57	78	104	
Total value	214,396			9.5%	2	14	27	43	63	
Shares outstanding (mn)	1,393									
<b>Equity value/share (Rs)</b>	<b>154</b>									

Note: We prefer to start our DCF in 2007 instead of 2008 in order to take full account of the capex.

Source: Goldman Sachs Research estimates.

**Exhibit 28: Key assumptions for valuing retail venture**

Risk free rate	7.5%
Equity risk premium	5.0%
Beta (X)	1.05
Cost of equity	12.8%
FY2008E pretax cost of debt	7.0%
Tax rate	33.7%
After tax cost of debt	4.6%
Long-term debt to total capital ratio	60%
<b>Weighted average cost of capital</b>	<b>7.9%</b>
Growth to perpetuity	4.0%

Note: Long-term debt/capital ratio is per company disclosures.

Source: Goldman Sachs Research estimates.

**Petrochemicals: Middle East petrochemical capacity adds likely to be delayed**

We value the petrochemical business at a near-peak EV/EBITDA multiple of 6.0X FY2008E. We have built in progressively lower petrochemical margins in FY2008E and FY2009E compared with FY2007E as we expect a petrochemicals downcycle to set in after FY2007E. We believe that the upcoming capacities in Iran are likely to be delayed further owing to acute shortage of skilled manpower, leading to a more gradual decline in margins from FY2007E than we earlier estimated.



**Exhibit 29: We have built in declining petrochemical margins after FY2007E**

Margin assumptions for Reliance's petrochemical business

(in US\$/ton)	FY07E	FY08E	FY09E	FY10E
<b>LLDPE—naphtha</b>	<b>890</b>	<b>800</b>	<b>680</b>	<b>580</b>
HDPE—naphtha	870	805	660	560
<b>PP—naphtha</b>	<b>890</b>	<b>855</b>	<b>630</b>	<b>530</b>
PVC—1.025 x (0.235 x Ethylene + 0.864 x EDC)	329	314	268	227
<b>POY—naphtha</b>	<b>940</b>	<b>830</b>	<b>730</b>	<b>630</b>
PSF—naphtha	865	780	630	530
<b>PX—naphtha</b>	<b>465</b>	<b>430</b>	<b>370</b>	<b>360</b>
POY—0.85 x PTA—0.34 x MEG	341	300	294	211
<b>PSF—0.85 x PTA—0.34 x MEG</b>	<b>266</b>	<b>250</b>	<b>194</b>	<b>111</b>
PTA—0.67 x PX	272	239	199	195

Source: Goldman Sachs Research estimates.

**Refining: We forecast medium-term Singapore complex margin of US\$7.0-US\$6.5/bbl.**

For the refining business, we use a peak cycle EV/EBITDA multiple of 5.5X FY2008E. We expect the Singapore complex margin to start declining from FY2007E, though the decline is not likely to be steep till FY2010E. We forecast the Singapore complex margin at US\$7.0-US\$6.5/bbl during this period.

**Exhibit 30: Reliance's GRM to decline gradually in line with Singapore complex margin**

Refining business assumptions

	FY06	FY07E	FY08E	FY09E	FY10E
Rupee-dollar exchange rate	44.3	45.5	44.5	44.5	44.5
Weighted average tariff on products (%)	7.4	5.2	4.7	4.7	4.7
Import tariff on crude (%)	5.1	5.1	4.6	4.6	4.6
<b>Tariff differential (%)</b>	<b>2.3</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
Refinery yield (US\$/bbl)	62.8	73.7	72.4	72.2	71.6
Cost of crude (US\$/bbl)	50.0	58.5	58.5	58.5	58.5
Landed cost of crude (US\$/bbl)	52.6	61.5	61.2	61.2	61.2
<b>Refining Margin (US\$/bbl)</b>	<b>10.3</b>	<b>12.2</b>	<b>11.2</b>	<b>11.0</b>	<b>10.4</b>
Crude throughput (mn tonnes)	30.5	32.3	33.0	33.0	33.0
Fuel and loss (%)	2.7	2.7	2.7	2.7	2.7

Source: Goldman Sachs Research estimates.

As disclosures for Reliance's Special Economic Zones (SEZs) are insufficient for us to establish a value, we allot none in our target price calculation. We believe that SEZs are long-dated options on real estate and that the company is still some time away from realizing value for these.

**Risks to our view: E&P project delay is the biggest risk**

**E&P project delay poses the biggest risk to our estimates and valuation, namely unanticipated delay in commencement of KG basin gas production.** We forecast production starting from 3QFY09, but offshore rig unavailability in the tight demand-supply scenario could push this back. If this occurs, it could also potentially lead to cost over-run due to higher rig rates than company estimates.

Reliance's core refining and petrochemical businesses run the risk of earlier-than-expected cyclical downturn. Of the two, the refining business has higher sensitivity to the company's earnings. An appreciating Indian currency against the US dollar poses downside risk to the company's earnings.

**Exhibit 31: Reliance's earnings are most sensitive to refining margins**

Sensitivity analysis of Reliance's earnings

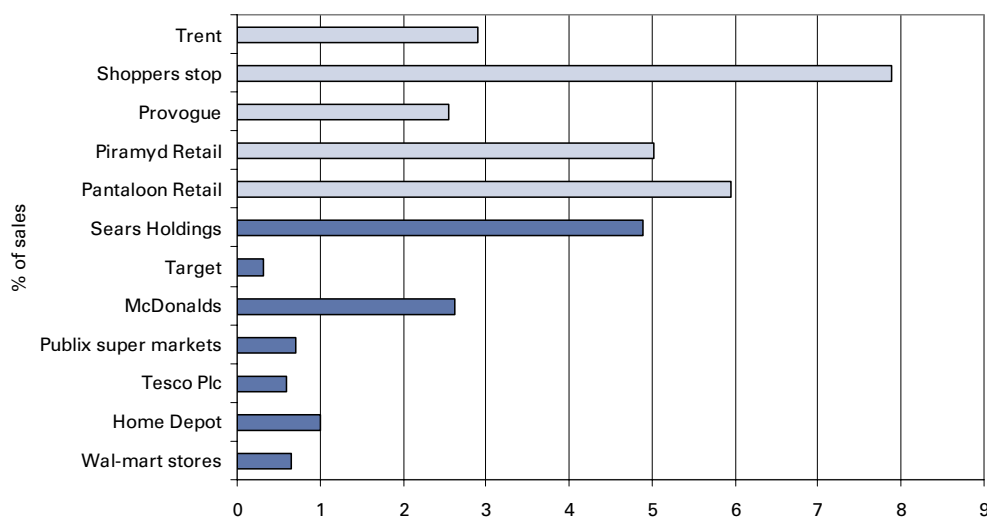
	Fiscal 2007E			Fiscal 2008E			Fiscal 2009E		
	Downside	Base case	Upside	Downside	Base case	Upside	Downside	Base case	Upside
<b>Rupee-dollar exchange rate</b>									
Rupee-dollar exchange rate	44.5	45.5	46.5	43.5	44.5	45.5	43.5	44.5	45.5
Net profits (Rs mn)	106,477	110,391	114,304	102,525	106,362	110,047	136,428	140,916	145,404
EPS (Rs)	76.4	79.2	82.0	73.6	76.3	79.0	97.9	101.1	104.4
<b>% upside/(downside)</b>	<b>(3.5)</b>		<b>3.5</b>	<b>(3.6)</b>		<b>3.4</b>	<b>(3.2)</b>		<b>3.2</b>
<b>Chemical prices</b>									
Change in prices (%)	(5.0)		5.0	(5.0)		5.0	(5.0)		5.0
Net profits (Rs mn)	100,355	110,391	120,426	97,090	106,362	115,635	128,713	140,916	152,951
EPS (Rs)	72.0	79.2	86.4	69.7	76.3	83.0	92.4	101.1	109.8
<b>% upside/(downside)</b>	<b>(9.1)</b>		<b>9.1</b>	<b>(8.7)</b>		<b>8.7</b>	<b>(8.6)</b>		<b>8.5</b>
<b>Refining margins (US\$/bbl)</b>									
Margins (US\$/bbl)	11.2	12.2	13.2	10.2	11.2	12.2	10.0	11.0	12.0
Net profits (Rs mn)	98,602	110,391	121,825	94,701	106,362	117,977	125,482	140,916	124,696
EPS (Rs)	70.9	79.2	87.4	68.0	76.3	84.7	90.1	101.1	112.2
<b>% upside/(downside)</b>	<b>(10.5)</b>		<b>10.4</b>	<b>(11.0)</b>		<b>10.9</b>	<b>(10.9)</b>		<b>10.9</b>

Source: Goldman Sachs Research estimates.

The organized retail business runs the risk of slow project execution, stiff competition from other entrants and higher than expected lease rental costs. The existing Indian retailers are already facing higher rental costs than global peers and this situation might worsen in future.

**Exhibit 32: Rental expenses as percentage of sales for existing retailers**

Indian retailers (light blue) pay higher rentals than global peers (dark blue)



Source: Capital Line, Goldman Sachs Research estimates.

Reliance intends to use its retail supply chain infrastructure as a key competitive advantage for earning higher margins. We believe any amendment to the existing state agricultural laws or rigidity in providing direct access to farmers agricultural output will have an adverse effect on its bottom line.

Risk of high attrition rates is another risk that might impact the retail business' prospects for Reliance. Since they have hired the different vertical heads from the industry, attrition could cause a sudden leadership void in strategy and implementation.

The company also faces regulatory risk in the retail petroleum business, where the company might not be able to increase market share if the government refuses to increase auto fuel prices periodically under our forecast of high oil price environment.

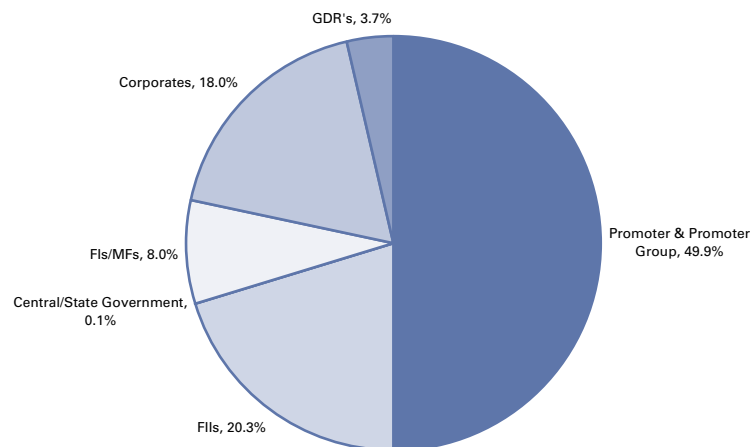
## Company profile: Changing mix of businesses

Reliance Industries is the largest integrated energy company in India. Its large size, petrochemical integration with its refinery (33 mtpa capacity with high complexity) and lower capital cost make Reliance a competitive global player. The company has a market cap of around US\$40 bn, making it one of the two largest listed companies in India. It has a free float of around 50%.

Reliance has diversified into the upstream gas business and plans to commence gas production from its prolific KG Basin block in 2H2009. We estimate E&P will become Reliance's largest business segment in terms of operating profits by FY2009E.

As the group flagship company, Reliance has financed group entry into organized retail through a 100% subsidiary. It has also tied up with Chevron to set another highly complex grassroots refinery (580 Kbpd) near its existing refinery under Reliance Petroleum Ltd (75% stake).

### Exhibit 33: Reliance Industries shareholding structure



Source: Company data.

## Reg AC

---

I, Nilesh Banerjee, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

## Investment profile

---

The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

## Quantum

---

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

## Disclosures

---

### Coverage group(s) of stocks by primary analyst(s)

There are no coverage groups associated with the analyst(s).

### Company-specific regulatory disclosures

The following disclosures relate to relationships between The Goldman Sachs Group, Inc. (with its affiliates, "Goldman Sachs") and companies covered by the Global Investment Research Division of Goldman Sachs and referred to in this research.

Goldman Sachs beneficially owned 1% or more of common equity (excluding positions managed by affiliates and business units not required to be aggregated under US securities law) as of the second most recent month end: PetroChina (HK\$10.24), Reliance Industries (Rs1,277.10), Reliance Industries (GDR) (\$58.15) and Reliance Petroleum (Rs62.15)

Goldman Sachs beneficially owned 5% or more of common equity (excluding positions managed by affiliates and business units not required to be aggregated under US securities law) as of the second most recent month end: China Petroleum & Chemical (A) (Rmb11.20) and China Petroleum and Chemical (H) (HK\$7.25)

Goldman Sachs has received compensation for investment banking services in the past 12 months: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), CNOOC (HK\$6.86), ConocoPhillips (\$68.30), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina (HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs expects to receive or intends to seek compensation for investment banking services in the next 3 months: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), CNOOC (HK\$6.86), ConocoPhillips (\$68.30), ENI (€24.75), Exxon Mobil Corp. (\$72.65), Gas Authority of India (Rs274.95), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina (HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), PTT Public Company (Bt192.00), Reliance Industries (Rs1,277.10), Reliance Industries (GDR) (\$58.15), Reliance Petroleum (Rs62.15), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs has received compensation for non-investment banking services during the past 12 months: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), ConocoPhillips (\$68.30), ENI (€24.75), Exxon Mobil Corp. (\$72.65), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina (HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), Reliance Industries (Rs1,277.10), Reliance Industries (GDR) (\$58.15), Reliance Petroleum (Rs62.15), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs had an investment banking services client relationship during the past 12 months with: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), CNOOC (HK\$6.86), ConocoPhillips (\$68.30), ENI (€24.75), Exxon Mobil Corp. (\$72.65), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina (HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs had a non-investment banking securities-related services client relationship during the past 12 months with: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), CNOOC (HK\$6.86), ConocoPhillips (\$68.30), ENI (€24.75), Exxon Mobil Corp. (\$72.65), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina

(HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), PTT Public Company (Bt192.00), Reliance Industries (Rs1,277.10), Reliance Industries (GDR) (\$58.15), Reliance Petroleum (Rs62.15), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs had a non-securities services client relationship during the past 12 months with: BP plc (ADS) (\$64.29), Chevron Corp. (\$71.45), China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), CNOOC (HK\$6.86), ConocoPhillips (\$68.30), ENI (€24.75), Exxon Mobil Corp. (\$72.65), Marathon Oil Corp. (\$86.74), Occidental Petroleum Corp. (\$45.33), PetroChina (HK\$10.24), Petroleo Brasileiro S.A. (ADR) (\$96.01), PTT Public Company (Bt192.00), Reliance Industries (Rs1,277.10), Reliance Industries (GDR) (\$58.15), Reliance Petroleum (Rs62.15), Repsol YPF (€25.95), Royal Dutch Shell plc (A) (€25.61) and TOTAL SA (€52.50)

Goldman Sachs has managed or co-managed a public or Rule 144A offering in the past 12 months: BP plc (ADS) (\$64.29), CNOOC (HK\$6.86) and ConocoPhillips (\$68.30)

A director and/or employee of Goldman Sachs is a director: BP plc (ADS) (\$64.29)

A director of the covered company is a director of Goldman Sachs: BP plc (ADS) (\$64.29) and Exxon Mobil Corp. (\$72.65)

Goldman Sachs makes a market in the securities: China Petroleum & Chemical (A) (Rmb11.20), China Petroleum and Chemical (H) (HK\$7.25), CNOOC (HK\$6.86) and PetroChina (HK\$10.24)

Goldman Sachs is a specialist in the relevant securities and will at any given time have an inventory position, "long" or "short," and may be on the opposite side of orders executed on the relevant exchange: BP plc (ADS) (\$64.29), CNOOC (HK\$6.86), Occidental Petroleum Corp. (\$45.33) and Petroleo Brasileiro S.A. (ADR) (\$96.01)

There are no company-specific disclosures for: Oil & Natural Gas Corp. (Rs910.85)

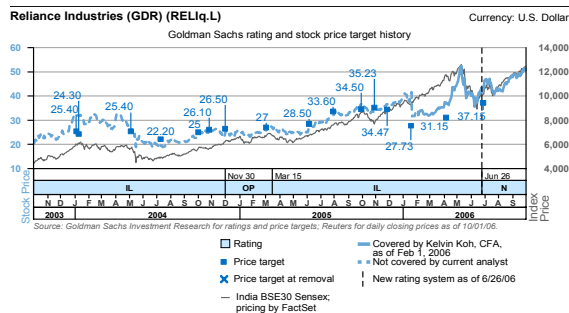
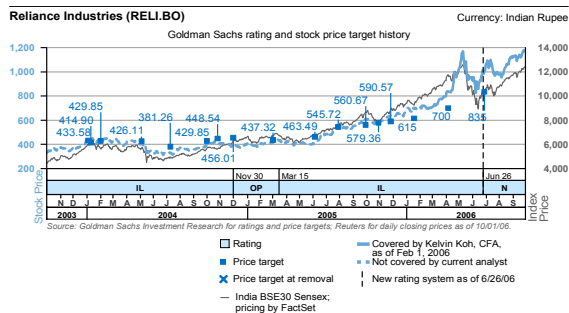
### Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	27%	59%	14%	53%	46%	45%

As of Oct 1, 2006, Goldman Sachs Global Investment Research had investment ratings on 2,245 equity securities. Prior to June 26, 2006, Goldman Sachs utilized a relative rating system of Outperform, In-Line and Underperform, which, for the purposes of the above disclosure required by NASD/NYSE rules, equated to Buy, Hold and Sell. As of June 26, 2006, Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure. See 'Ratings, Coverage groups and views and related definitions' below.

### Price target and rating history chart(s)



The price targets shown should be considered in the context of all prior published Goldman Sachs research, which may or may not have included price targets, as well as developments relating to the company, its industry and financial markets.

The price targets shown should be considered in the context of all prior published Goldman Sachs research, which may or may not have included price targets, as well as developments relating to the company, its industry and financial markets.

### Regulatory disclosures

#### Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; market making and/or specialist role.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage. **Distribution of ratings:** See the distribution of ratings disclosure above. **Price chart:** See the price chart, with changes of ratings and price targets in prior periods, above, or, if electronic format or if with respect to multiple companies which are the subject of this report, on the Goldman Sachs website at <http://www.gs.com/research/hedge.html>.

#### Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian

Corporations Act. **Canada:** Goldman Sachs Canada Inc. has approved of, and agreed to take responsibility for, this research in Canada if and to the extent it relates to equity securities of Canadian issuers. Analysts may conduct site visits but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited; **Japan:** See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company. **Korea:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in Russian law, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian Law on Appraisal. **Singapore:** Further information on the covered companies referred to in this research may be obtained from Goldman Sachs (Singapore) Pte. (Company Number: 198602165W). **United Kingdom:** Persons who would be categorized as private customers in the United Kingdom, as such term is defined in the rules of the Financial Services Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

**European Union:** Disclosure information in relation to Article 4 (1) (d) and Article 6 (2) of the European Commission Directive 2003/126/EC is available at [http://www.gs.com/client\\_services/global\\_investment\\_research/europeanpolicy.html](http://www.gs.com/client_services/global_investment_research/europeanpolicy.html)

## Ratings, coverage groups and views and related definitions

**Buy (B), Neutral (N), Sell (S)** -Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock's return potential relative to its coverage group as described below. Any stock not assigned as a Buy or a Sell on an Investment List is deemed Neutral. Each regional Investment Review Committee manages various regional Investment Lists to a global guideline of 25%-35% of stocks as Buy and 10%-15% of stocks as Sell; however, the distribution of Buys and Sells in any particular coverage group may vary as determined by the regional Investment Review Committee. Regional Conviction Buy and Sell lists represent investment recommendations focused on either the size of the potential return or the likelihood of the realization of the return.

**Return potential** represents the price differential between the current share price and the price target expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

**Coverage groups and views:** A list of all stocks in each coverage group is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>. The analyst assigns one of the following coverage views which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and/or valuation. **Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Not Rated (NR).** The investment rating and target price, if any, have been removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target, if any, for this stock, because there is not a sufficient fundamental basis for determining an investment rating or target. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon. **Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company. **Not Available or Not Applicable (NA).** The information is not available for display or is not applicable. **Not Meaningful (NM).** The information is not meaningful and is therefore excluded.

## Ratings, coverage views and related definitions prior to June 26, 2006

Our rating system requires that analysts rank order the stocks in their coverage groups and assign one of three investment ratings (see definitions below) within a ratings distribution guideline of no more than 25% of the stocks should be rated Outperform and no fewer than 10% rated Underperform. The analyst assigns one of three coverage views (see definitions below), which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and valuation. Each coverage group, listing all stocks covered in that group, is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>.

### Definitions

**Outperform (OP).** We expect this stock to outperform the median total return for the analyst's coverage universe over the next 12 months. **In-Line (IL).** We expect this stock to perform in line with the median total return for the analyst's coverage universe over the next 12 months. **Underperform (U).** We expect this stock to underperform the median total return for the analyst's coverage universe over the next 12 months.

**Coverage views: Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation. **Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Current Investment List (CIL).** We expect stocks on this list to provide an absolute total return of approximately 15%-20% over the next 12 months. We only assign this designation to stocks rated Outperform. We require a 12-month price target for stocks with this designation. Each stock on the CIL will **automatically** come off the list after 90 days unless renewed by the covering analyst and the relevant Regional Investment Review Committee.

## Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs, and pursuant to certain contractual arrangements, on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy.

This research is disseminated in Australia by Goldman Sachs JBWere Pty Ltd (ABN 21 006 797 897) on behalf of Goldman Sachs; in Canada by Goldman Sachs Canada Inc. regarding Canadian equities and by Goldman Sachs & Co. (all other research); in Germany by Goldman Sachs & Co. oHG; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co.,

Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs JBVere (NZ) Limited on behalf of Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

**European Union:** Goldman Sachs International, authorised and regulated by the Financial Services Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman, Sachs & Co. oHG, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also be distributing research in Germany.

### **General disclosures in addition to specific disclosures required by certain jurisdictions**

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than some industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division.

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and our proprietary trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, our proprietary trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees, excluding equity analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this research.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Current options disclosure documents are available from Goldman Sachs sales representatives or at <http://theocc.com/publications/risks/riskstoc.pdf>. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Our research is disseminated primarily electronically, and, in some cases, in printed form. Electronic research is simultaneously available to all clients.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, One New York Plaza, New York, NY 10004.

**Copyright 2007 The Goldman Sachs Group, Inc.**

**No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.**