April 20, 2007

INITIATION

Cairn India Ltd. (CAIL.BO)

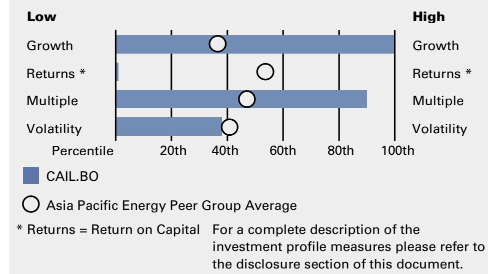
Neutral

Potential upside from further exploration; initiate with Neutral

Investment view

We initiate coverage on Cairn India with a Neutral rating and an NAV-based 12-month target price of Rs133. Cairn India is effectively a single-asset company today with its Rajasthan asset constituting more than 75% of the target price. We believe that the company's current 2P reserves have been fully priced in by the market and the potential upside from current levels could primarily come from: (1) successful execution of enhanced oil recovery (EOR) techniques, (2) further exploration in Rajasthan itself, and (3) success in Cairn India's bouquet of other exploration assets, notably Ganga Valley basin.

Investment Profile: Cairn India Ltd.



Core drivers of growth

We estimate that Cairn India's oil production will grow five-fold through 2007E-2010E, driven by its Rajasthan asset. We believe Cairn India's earnings are highly leveraged to oil prices, on which we remain bullish; the company will also benefit from the attractive fiscal terms for Rajasthan oil production.

Risks to the investment case

(1) Payment of oil cess (government levy) in Rajasthan, (2) project delay in Rajasthan, (3) soft crude prices, (4) less-than-expected potential EOR upside.

Valuation

We value Cairn India using NAV methodology based on sum of DCF-based valuations of Rajasthan, Ravva, Cambay assets, and the recent gas find in KG Basin at EV/boe of US$3. We have used normalized Brent of US$42/bbl for our calculations. The valuation appears expensive on near-term multiples as monetization of its core Rajasthan asset will begin only in 2009E.

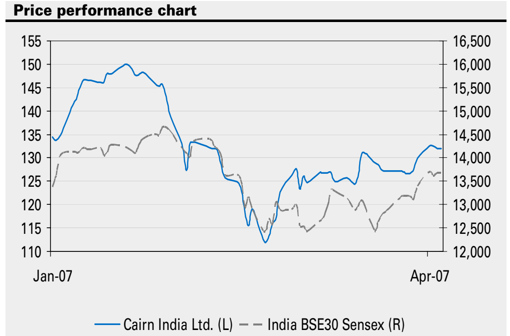
Industry context

We expect Cairn India's production to account for about 15% of India's domestic crude supply from 2011E. Hence, the importance of Cairn's oil discovery in the frontier basin of Rajasthan cannot be overemphasized.

Key data	Current
Price (Rs)	131.95
12 month price target (Rs)	133.00
Market cap (Rs mn / US$ mn)	234,658.6 / 5,585.8
Foreign ownership (%)	12.0

	12/06	12/07E	12/08E	12/09E
EPS (Rs) New	**0.75**	**1.34**	**1.81**	**11.61**
EPS revision (%)	--	--	--	--
EPS growth (%)	NM	79.5	35.3	541.1
EPS (dil) (Rs) New	**0.75**	**1.34**	**1.81**	**11.61**
P/E (X)	NM	98.6	72.8	11.4
P/B (X)	0.8	0.8	0.8	0.7
EV/EBITDA (X)	--	23.1	19.8	6.4
Dividend yield (%)	--	--	--	--
ROE (%)	--	0.8	1.1	6.6

Price performance chart



Share price performance (%)	3 month	6 month	12 month
Absolute	(10.0)	--	--
Rel. to Bombay SE Sensitive Index	(6.6)	--	--

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 4/19/2007 close.

INVESTMENT LIST MEMBERSHIP

Neutral

Coverage view: Neutral

India:
Oil

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Cairn India Ltd.: Summary financials

Profit model (Rs mn)	12/06	12/07E	12/08E	12/09E
Total revenue	**9,284.8**	**12,641.3**	**15,514.0**	**42,715.8**
Cost of goods sold	(6,137.8)	(7,444.0)	(8,242.4)	(12,868.1)
SG&A	(616.0)	(1,087.4)	(1,314.5)	(1,721.1)
R&D	--	--	--	--
Other operating profit/(expense)	0.0	0.0	0.0	0.0
EBITDA	**7,071.9**	**9,645.0**	**12,161.3**	**37,175.4**
Depreciation & amortization	(4,540.8)	(5,535.0)	(6,204.2)	(9,048.8)
EBIT	**2,531.0**	**4,109.9**	**5,957.1**	**28,126.7**
Interest income	--	--	--	--
Interest expense	(233.9)	(578.8)	(1,290.8)	(2,091.8)
Income/(loss) from uncons. subs.	0.0	0.0	0.0	0.0
Others	(483.0)	100.0	100.0	150.0
Pretax profits	**1,814.1**	**3,631.1**	**4,766.3**	**26,184.8**
Income tax	(970.6)	(1,139.3)	(1,529.9)	(5,437.0)
Minorities	0.0	0.0	0.0	0.0
Net income pre-preferred dividends	**843.5**	**2,491.8**	**3,236.4**	**20,747.9**
Preferred dividends	0.0	0.0	0.0	0.0
Net income (pre-exceptionals)	**843.5**	**2,491.8**	**3,236.4**	**20,747.9**
Post-tax exceptionals	0.0	0.0	0.0	0.0
Net income	**843.5**	**2,491.8**	**3,236.4**	**20,747.9**
EPS (basic, pre-except) (Rs)	0.47	1.40	1.82	11.65
EPS (basic, post-except) (Rs)	0.75	1.34	1.82	11.65
EPS (diluted, post-except) (Rs)	0.75	1.34	1.81	11.61
DPS (Rs)	--	--	--	--
Dividend payout ratio (%)	0.0	0.0	0.0	0.0
Free cash flow yield (%)	--	(2.2)	(7.8)	0.3

Growth & margins (%)	12/06	12/07E	12/08E	12/09E
Sales growth	NM	36.2	22.7	175.3
EBITDA growth	NM	36.4	26.1	205.7
EBIT growth	NM	62.4	44.9	372.2
Net income growth	NM	195.4	29.9	541.1
EPS growth	NM	80.1	35.3	541.1
Gross margin	33.9	41.1	46.9	69.9
EBITDA margin	76.2	76.3	78.4	87.0
EBIT margin	27.3	32.5	38.4	65.8

Cash flow statement (Rs mn)	12/06	12/07E	12/08E	12/09E
Net income pre-preferred dividends	843.5	2,491.8	3,236.4	20,747.9
D&A add-back	1,003.8	2,367.5	2,814.2	5,658.8
Minorities interests add-back	0.0	0.0	0.0	0.0
Net inc/(dec) working capital	441.0	3,182.9	1,102.0	1,486.3
Other operating cash flow	0.0	0.0	0.0	0.0
Cash flow from operations	**2,469.3**	**8,283.5**	**7,252.6**	**28,092.9**
Capital expenditures	(10,465.0)	(13,075.0)	(24,645.0)	(25,757.5)
Acquisitions	(60,778.5)	0.0	0.0	0.0
Divestitures	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0
Cash flow from investments	**(71,243.5)**	**(13,075.0)**	**(24,645.0)**	**(25,757.5)**
Dividends paid (common & pref)	0.0	0.0	0.0	0.0
Inc/(dec) in debt	0.0	6,675.0	11,125.0	8,900.0
Common stock issuance (repurchase)	88,251.0	0.0	0.0	0.0
Other financing cash flows	0.0	0.0	0.0	0.0
Cash flow from financing	**88,251.0**	**6,675.0**	**11,125.0**	**8,900.0**
Total cash flow	**19,476.9**	**1,883.5**	**(6,267.4)**	**11,235.4**

Balance sheet (Rs mn)	12/06	12/07E	12/08E	12/09E
Cash & equivalents	20,818.9	22,702.4	16,434.9	27,670.3
Accounts receivable	2,434.0	877.9	1,077.4	2,966.4
Inventory	1,317.0	1,227.6	1,594.4	2,620.7
Other current assets	2,502.0	2,502.0	2,502.0	2,502.0
Total current assets	**27,071.9**	**27,309.8**	**21,608.7**	**35,759.4**
Net PP&E	26,046.5	36,754.0	58,584.8	78,683.6
Net intangibles	258,518.6	258,518.6	258,518.6	258,518.6
Total investments	4.0	4.0	4.0	4.0
Other long-term assets	0.0	0.0	0.0	0.0
Total assets	**311,641.1**	**322,586.5**	**338,716.2**	**372,965.6**
Accounts payable	5,191.0	7,067.5	8,673.6	13,010.5
Short-term debt	0.0	0.0	0.0	0.0
Other current liabilities	1,894.0	1,554.8	1,617.0	1,681.7
Total current liabilities	**7,085.0**	**8,622.3**	**10,290.6**	**14,692.1**
Long-term debt	4,112.0	10,787.0	21,912.0	30,812.0
Other long-term liabilities	3,564.0	3,614.0	3,714.0	3,914.0
Total long-term liabilities	7,676.0	14,401.0	25,626.0	34,726.0
Total liabilities	**14,761.0**	**23,023.3**	**35,916.6**	**49,418.1**
Common stock & premium	17,783.9	17,807.8	17,807.8	17,807.8
Other common equity	279,096.0	281,755.2	284,991.6	305,739.5
Total common equity	**296,879.9**	**299,563.0**	**302,799.4**	**323,547.3**
Minority interest	0.0	0.0	0.0	0.0
Total liabilities & equity	**311,640.9**	**322,586.4**	**338,716.1**	**372,965.5**
BVPS (Rs)	**166.94**	**168.45**	**170.27**	**181.93**

Ratios	12/06	12/07E	12/08E	12/09E
ROE (%)	--	0.8	1.1	6.6
ROA (%)	--	0.8	1.0	5.8
ROACE (%)	--	1.0	1.4	7.1
Inventory days	--	62.4	62.5	59.8
Receivables days	--	47.8	23.0	17.3
Payable days	--	300.5	348.5	307.5
Net debt/equity (%)	(5.6)	(4.0)	1.8	1.0
Interest cover - EBIT (X)	10.8	7.1	4.6	13.4

Valuation	12/06	12/07E	12/08E	12/09E
P/E (analyst) (X)	NM	98.6	72.8	11.4
P/B (X)	0.8	0.8	0.8	0.7
EV/EBITDA (X)	--	23.1	19.8	6.4
Dividend yield (%)	--	--	--	--

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

Source: Company data, Goldman Sachs Research estimates.

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EXPECTED NEWS FLOW/EVENTS

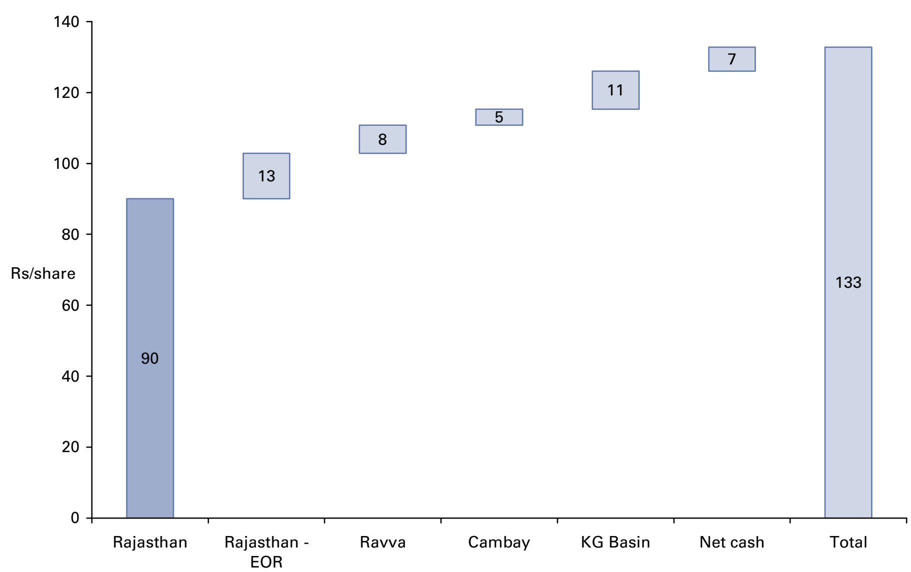
DATE	EVENT	COMMENT
June 2007	First quarter results	We expect the results to be in line with our annual estimates
June-July 2007	Resolution of pipeline dispute	Cairn India, ONGC likely to share the pipeline capex in proportion of 70:30
September 2007	Announcement of reserve size of new KG Basin gas find	We expect in-place reserve size to be around 12 tcf of gas

Source: Company data, Goldman Sachs Research estimates.
The prices in the body of this report are based on the market close of April 17, 2007.

Investment view: Initiate with Neutral; target price of Rs133

We initiate coverage on Cairn India with a Neutral rating and a 12-month target price of Rs133. We value the company using an NAV methodology based on sum of the DCF-based valuation of each of its assets—Rajasthan, Ravva, Cambay Basin, and the recent gas find in the KG Basin (at EV/boe of US$3).

Exhibit 1: The Rajasthan asset constitutes 78% of the sum-of-the-parts valuation
Our Cairn India NAV valuation at normalized Brent of US$42/bbl



Source: Goldman Sachs Research estimates.

Our NAV calculation, based on a normalized Brent price forecast of US$42/bbl, implies that Cairn India's currently known 2P reserves have been fully priced in by the market. But, we believe the potential value of Rs13/share from enhanced oil recovery (EOR) techniques (such as chemical flooding and Alkaline/Surfactant/Polymer flooding) that the management plans to implement in the Rajasthan fields has not yet been captured fully by the market.

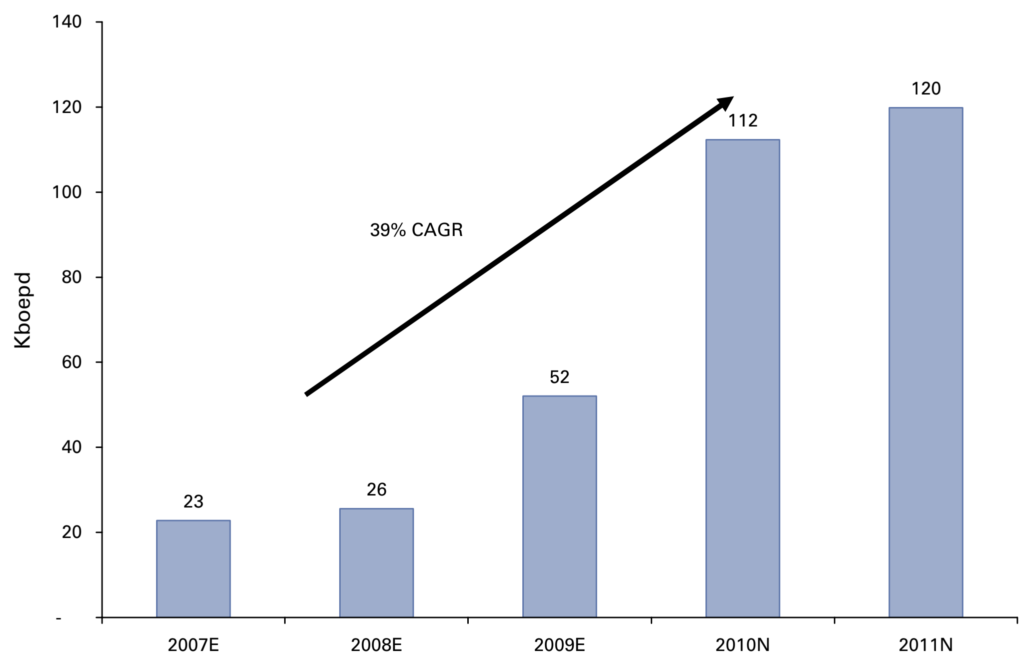
Moreover, our target price does not include potential value from further exploration in the Barmer Hill formation in the Rajasthan basin, which we believe has about 1.4 bn barrels of in-place oil reserves.

In addition to this, we have not assigned any value to the potential upside from Cairn India's bouquet of exploration assets, including Ganga Valley, as it is still in the nascent phase of exploration and information about the reserve size is not available at present.

Rajasthan oil production to commence in mid-2009

The Cairn India management is confident of meeting the June 2009 target for commencement of crude production in Rajasthan. We believe that this is achievable given that the development phase of the project is likely to take about 15 months. We estimate that Cairn India's oil production will jump five-fold between 2007E and 2010E, when Rajasthan reaches plateau production.

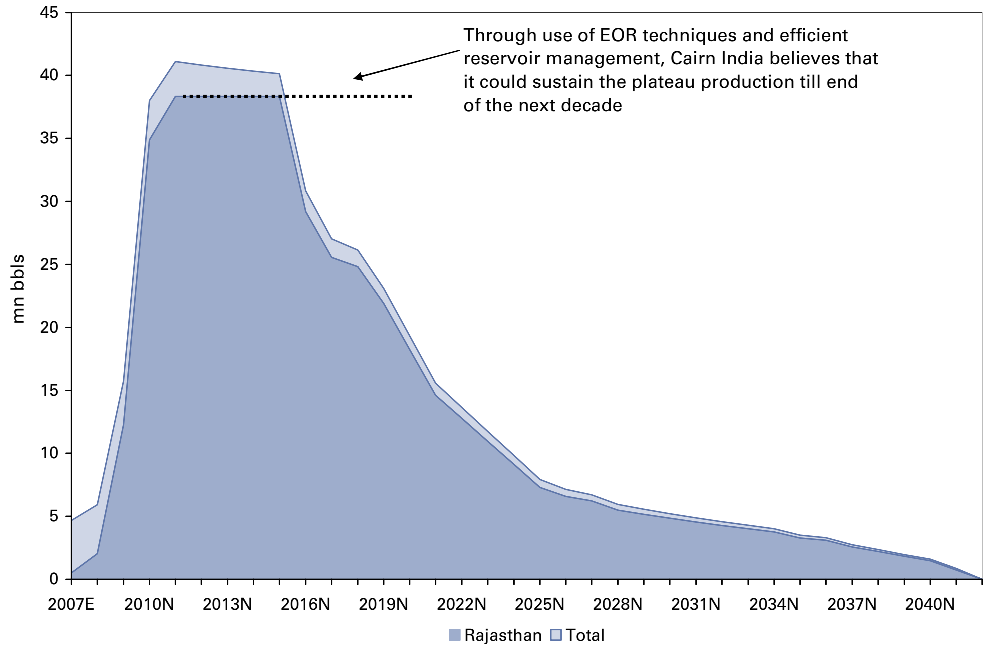
Exhibit 2: Oil production to grow five-fold over 2007E-2010E
Production profile of Cairn India



Source: Goldman Sachs Research estimates.

The company is expecting Rajasthan plateau production of 150 Kbopd (Cairn India's share is 70% of this) to be sustained for 4-5 years before going into a natural decline. The plateau production level, according to the company, could be extended to about ten years by using EOR techniques from the second year of production itself.

Exhibit 3: Rajasthan constitutes almost the entire production profile of Cairn India
Cairn India's overall production profile vs. that of base case in Rajasthan



Source: Goldman Sachs Research estimates.

Our base case valuation of Rs90/share for the Rajasthan asset neither includes the potential production upside from EOR nor the increase in operating costs that the production of these incremental barrels will incur. However, the EOR techniques themselves are unlikely to be capital-intensive and the incremental capex, even if small, will be recoverable by Cairn India under the production sharing contract (PSC) with the government. We have valued the potential EOR upside separately at Rs13/share within our target price of Rs133 for Cairn India.

Exhibit 4: Cairn India has gross in-place oil reserves in Rajasthan of 3.66 bn barrels
Cairn India's announced reserves

mnboe		**Cairn India's net working interest**			
Fields	**Gross in-place reserves**	**Proved (1P)**	**Probable (2P)**	**Contingent (EOR)**	**Total**
Rajasthan Block					
Mangala	1,202	157	300	84	541
Bhagyam	468	-	98	39	137
Aishwariya	249	-	39	27	66
Other fields	1,741	3	5	42	50
Ravva	506	19	24	-	43
Cambay	126	4	6	6	16
KG -DWN - 98/2	302	-	-	14	14
Total	**4,594**	**183**	**472**	**212**	**867**

Source: Company data.

We believe Cairn India's earnings are highly leveraged to oil prices

We are forecasting US$64/bbl-US$65/bbl for Brent through FY2008E-FY2010E and believe the risks to our estimates remain skewed towards the upside. In our view, the sector currently is at the mid-point of what could be a four-five-year energy upcycle. Our normalized price forecast for Brent is US$42/bbl.

Exhibit 5: We remain bullish on crude oil prices
Our crude oil price forecasts

(in US$/bbl)	2007E	2008E	2009E	Normalized
WTI	64.75	68.00	68.00	45.00
Brent	63.84	65.00	65.00	42.00

Source: Bloomberg, Goldman Sachs Research estimates.

Cairn India's earnings are highly leveraged to crude prices and given the fact that Oil and Natural Gas Corp (ONGC; ONGC.BO, Buy) has to share the under-recoveries of the loss-making state-owned downstream companies, we believe Cairn India offers investors the only "clean" crude oil play in India. Cairn India, which already produces crude oil from the Ravva field, has never offered any discount to the Indian downstream companies on its sale of crude to date.

Since Cairn India will reach full production in 2010E, which is our first year of normalized oil price assumptions, **sensitivity of its earnings to the long-term crude price is of more significance than that in the next two-three years.**

Exhibit 6: We believe Cairn India's earnings are highly leveraged to Brent crude prices
Sensitivity analysis for Cairn India

Year ending Dec 31	2008E			2009E			2010N		
	Downside	Base case	Upside	Downside	Base case	Upside	Downside	Base case	Upside
Exchange rate									
Rs/US$	43.5	44.5	45.5	43.5	44.5	45.5	43.5	44.5	45.5
Net profits (Rs mn)	3,260	3,462	3,665	20,463	21,166	21,870	31,296	32,476	33,655
Earnings per share (Rs)	1.8	1.9	2.1	11.5	11.8	12.2	17.5	18.2	18.8
% upside/(downside)	**(5.8)**		**5.8**	**(3.3)**		**3.3**	**(3.6)**		**3.6**
Average crude prices									
Brent Crude price (US$/bbl)	63.0	65.0	67.0	63.0	65.0	67.0	40.0	42.0	44.0
Net profits (Rs mn)	3,223	3,462	3,702	20,172	21,166	22,161	29,777	32,476	35,174
Earnings per share (Rs)	1.8	1.9	2.1	11.3	11.8	12.4	16.7	18.2	19.7
% upside/(downside)	**(6.9)**		**6.9**	**(4.7)**		**4.7**	**(8.3)**		**8.3**

Source: Goldman Sachs Research estimates.

Our estimates suggest that Cairn India's earnings vary by more than 4% for every US$1/bbl change in the normalized oil price. This implies one of the highest leverages to crude oil prices within Asian oil and gas companies under our coverage.

Exhibit 7: We believe Cairn India has one of the highest leverages to oil prices among companies we cover in the region

Sensitivity to oil prices for Asian oil and gas companies under our coverage

Company	2007E	2008E	2009E	2010E
Cairn India	**2.9%**	**3.5%**	**2.3%**	**4.1%**
ONGC	2.5%	2.6%	2.3%	4.0%
CNPC	3.5%	3.6%	3.6%	6.3%
PTTEP	1.5%	1.5%	1.5%	2.7%
OGDCL	1.1%	1.1%	1.1%	1.0%
PTT	0.9%	0.9%	0.4%	0.5%
PetroChina	1.7%	1.9%	2.0%	3.3%
Sinopec	1.5%	1.5%	1.7%	4.0%
CNOOC	1.8%	1.7%	1.8%	4.1%

Note: We assume there is full pass through of product prices for PetroChina and Sinopec.

Source: Goldman Sachs Research estimates.

However, we believe that being primarily a project stock, Cairn India’s share price will be more sensitive to newsflow on the progress of development of the Rajasthan fields and crude transportation till 2009E, when crude production is scheduled to begin in Rajasthan.

Cairn India’s current share price implies a long-term Brent price of US$46.5/bbl, based on current production estimates, against our normalized forecast of US$42/bbl.

Cairn India to enjoy attractive fiscal benefits under the PSC

We believe the fiscal terms of the production sharing contract (PSC)—under which Cairn India will be operating the Rajasthan fields—are quite attractive and will enhance the IRR of the project. The key features of the PSC are as follows:

- Zero royalty on the crude produced as the entire 20% royalty on the wellhead price will be borne by ONGC, which holds 30% stake in the field
- Low share of profit petroleum to be paid to the government as maximum government share is only 50% at an investment multiple of 2.5X, whereas the government share reaches up to 85% in some cases
- Income-tax holiday for the first seven years of production, when Cairn India will only pay minimum alternative tax (MAT) of 10.455% (marginal corporate tax rate is about 34%)
- Likely zero cess[#] on the oil produced from Rajasthan, as cess is going to be paid by ONGC as per the norm for pre-NELP blocks

The full-life IRR of the Rajasthan asset from 2005 to 2041E works out to about 30% as against an average of 25% for most of the upstream projects in the region. This also includes Cairn India’s share of US$500 mn towards the capital cost of the pipeline for evacuation of crude.

Although our base case estimates assume that Cairn India will not be required to pay any cess to the government for its crude, the issue still remains undecided; the management plans to go in for arbitration on this issue and expects it to be settled in their favor. The cess amount for this field itself is not clear and could vary from the old rate of Rs927/ton for the pre-NELP blocks to the current rate of Rs2,575/ton (worst case).

[#] Cess is a government levy imposed on oil production from pre-NELP fields

Our calculations suggest that the **Rajasthan asset's IRR drops to 25% and DCF value falls to Rs70/share from base valuation of Rs90/share in the worst case scenario** (see Exhibit 24).

Cairn India's PSCs with the government for Cambay and Ravva fields are linked to post-tax rate of return (PTRR) calculation and not to the investment multiple sliding scale as in the case of Rajasthan. We have assumed that government's entitlement will continue to be 12.5% for Cambay and 60% for Ravva.

Exhibit 8: Cairn India enjoys attractive fiscal terms in its projects
Key features of the various PSCs of Cairn India

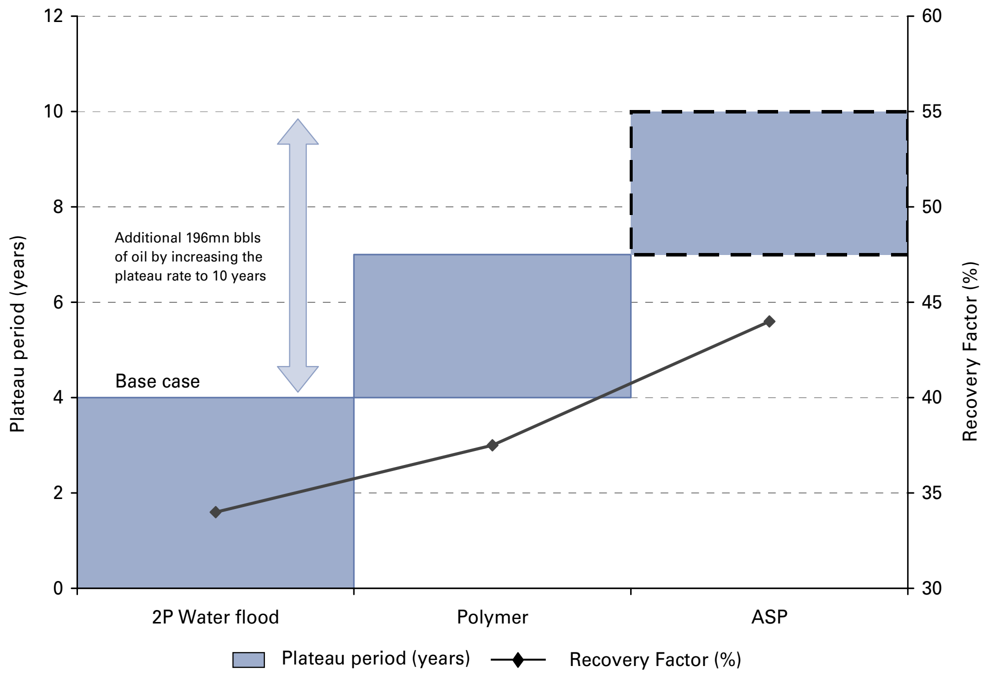
	Government share			
PTTR	**Ravva (%)**	**Cambay (CB-OS-2) (%)**	**Investment Multiple (x)**	**Rajasthan (%)**
<15%	10.0	12.5		
<20%	15.0	22.5	0<1.5	20
<25%	20.0	45.0	1.5<2.0	30
<30%	25.0	50.0	2.0<2.5	40
<35%	35.0	55.0	>2.5	50
<40%	35.0	60.0		
>40%	60.0	60.0		

Source: Company data.

Potential reserve upside from EOR and further exploration

The Cairn India management is upbeat about prospects of using EOR techniques for enhancing recovery from the Rajasthan asset. The company estimates that secondary recovery methods such as water flooding could potentially improve recovery by about 5%, whereas EOR techniques such as chemical flooding (e.g., micellar-polymer) and Alkaline/Surfactant/Polymer (ASP) flooding could add nearly 10% to the recovery factor. **This translates to an additional 196 mn barrels of oil production as per the company's estimates**. Notably, EOR will not add significantly to the capital costs of the company but will double the overall lifting cost to about US$6/bbl.

Exhibit 9: Cairn India expects the recovery factor to improve 10% using EOR techniques
Growth potential from EOR techniques and technology



Source: Company data, Goldman Sachs Research.

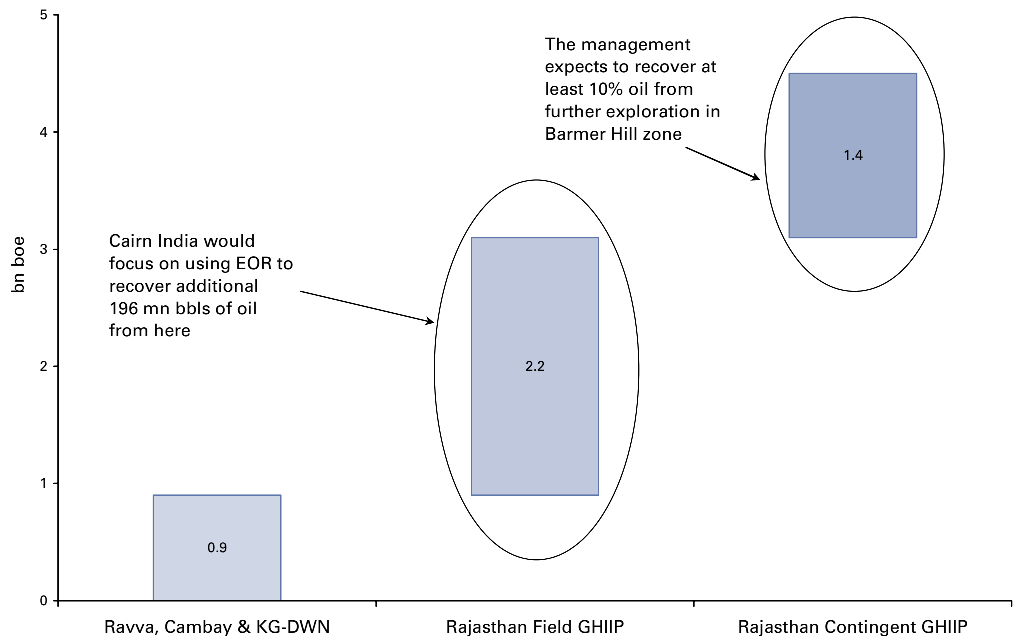
We believe that the Rajasthan project will benefit from EOR starting in the early years itself as this will not only restore reservoir pressure, but also improve oil displacement/fluid flow in the reservoir. **The company expects the plateau Rajasthan production of 150 Kbopd to extend from four years (estimated currently) to about ten years if they manage to implement EOR techniques successfully**. Although it is too early to finalize the optimal mix of various possible recovery techniques, the management believes that the geological structure of the block indicates potential upside in terms of reserve accretion.

Exploration potential could provide further upside

We believe that Cairn India could have potential reserve upside from exploration in Rajasthan as well as its portfolio of exploration assets. The Rajasthan basin itself is still evolving after it was discovered as a frontier basin by Cairn India and the management believes that some pay zones such as Barmer Hill could provide substantial potential upside. **The company has mentioned 1.4 bn barrels of in-place oil reserves in this zone, which could yield at least an additional 140 mn barrels of oil at 10% recovery;** however, harnessing these reserves will involve difficult exploration techniques and high lifting cost.

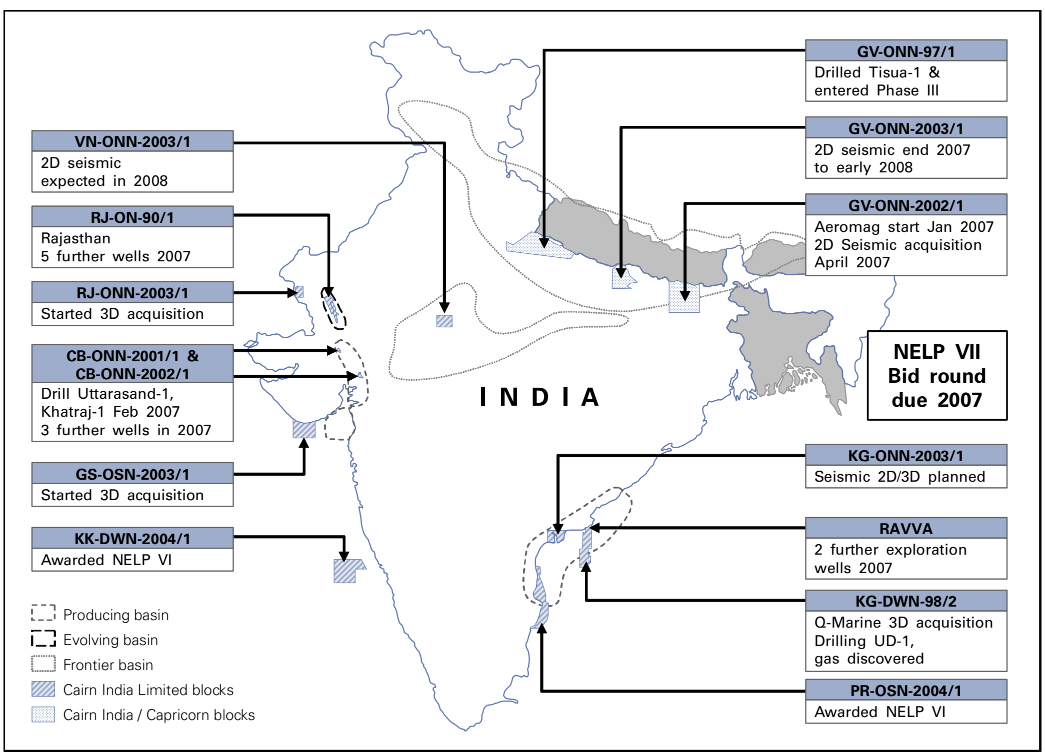
Cairn India currently has a portfolio of 12 exploration assets and plans to bid for more in the upcoming NELP-VII auction rounds. Further, **Cairn India is strategically positioning itself to explore frontier basins such as Ganga Valley and Vindhyan basin to maximize its return potential.**

Exhibit 10: EOR, further exploration could recover additional 350 mn barrels in Rajasthan
Cairn India's reserves breakdown



Source: Company data, Goldman Sachs Research.

Exhibit 11: We believe Ganga Valley holds most promise among other assets
Cairn India's recent and forthcoming exploration activities



Source: Company data.

Among these assets, the Ganga Valley basin is a frontier basin and could be an extension of the geological structure of the Nepal assets of the parent company Cairn Energy Plc. In geological terms, the area is one of the largest sedimentary basins in India, but is largely unexplored with only ten wells drilled till date because of which its hydrocarbon potential remains largely unknown.

Cairn India has finished an aeromagnetic survey of one of the three blocks (GV-ONN-2002/1) in the basin and will be proceeding with 2D seismic studies from April 2007. Although the exploration is in its preliminary stage, media reports have suggested substantial in-place reserves in the block.

Notably, the three blocks in the Ganga Valley are the only ones in India where the parent company has any direct stake.

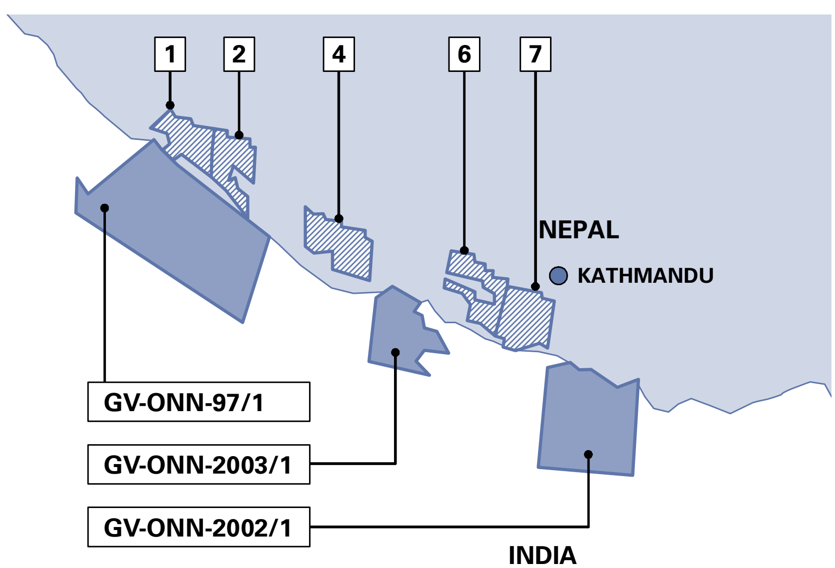
Exhibit 12: The parent company still has a stake in the Indian portion of this basin
Holding structure of Ganga Valley basin

			Interest (%)	
Block	**State**	**Operator**	**Cairn India**	**Cairn Energy Plc ***
Ganga Valley - India				
GV-ONN-2002/1	Bihar	Cairn India	50	50
GV-ONN-2003/1	Uttar Pradesh	Cairn India	24	25
GV-ONN-97/1	Uttar Pradesh	ONGC	15	15
Ganga Valley - Nepal				
1,2,4,6 & 7	Nepal	Cairn Energy Plc *	0	100

* Cairn Energy Plc's stake is held through the newly formed company called Capricorn Energy Ltd.

Source: Company data.

Exhibit 13: The three Indian blocks have large exploration areas in Ganga Valley
Various fields in the Ganga Valley basin in India, Nepal controlled by Cairn India and its parent



Source: Company data.

Cairn India has a track record of enhancing recovery and finding new reserves

Cairn India has increased recovery from the Ravva and Cambay basins from the time it took over as the operator of these fields and successfully maintained higher production levels than initially estimated—a testimony to its exploration and reservoir management skills.

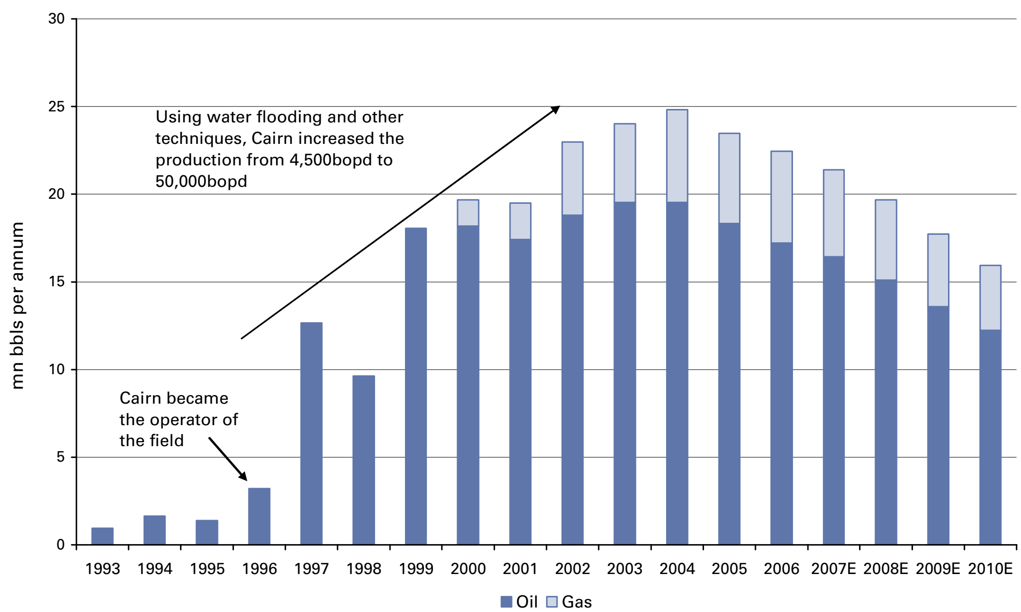
Exhibit 14: Cairn India has tasted success at Ravva and Cambay as an operator
Cairn India's holdings in assets in production and development phases

Block	Interest of Cairn India	Partners	Operator
Ravva	22.50%	ONGC (40%); Videocon Industries Limited (25%);Ravva Oil (Singapore) pte Ltd. (12.5%)	Cairn India
CB/OS-2 (Cambay)	40%	ONGC (50%); Tata Petrodyne Limited (10%)	Cairn India
RJ-ON-90/1 (Rajasthan)	70%	ONGC (30%)	Cairn India

Source: Company data.

Production of crude oil from the Ravva field is a case in point where the plateau production rate of about 50 Kbopd has already been sustained for nine years. There has been a concomitant increase of 2P reserves to 290 mnboe from 101 mnboe using water flooding since Cairn India took over as the operator of the field in 1994. The company is expecting the final recovery factor of the field to be about 60% aided by further exploration in 2007.

Exhibit 15: Increase in Ravva production demonstrates Cairn India's efficient reservoir management skills, in our view
Production profile of the Ravva field



Source: Company data, Goldman Sachs Research estimates.

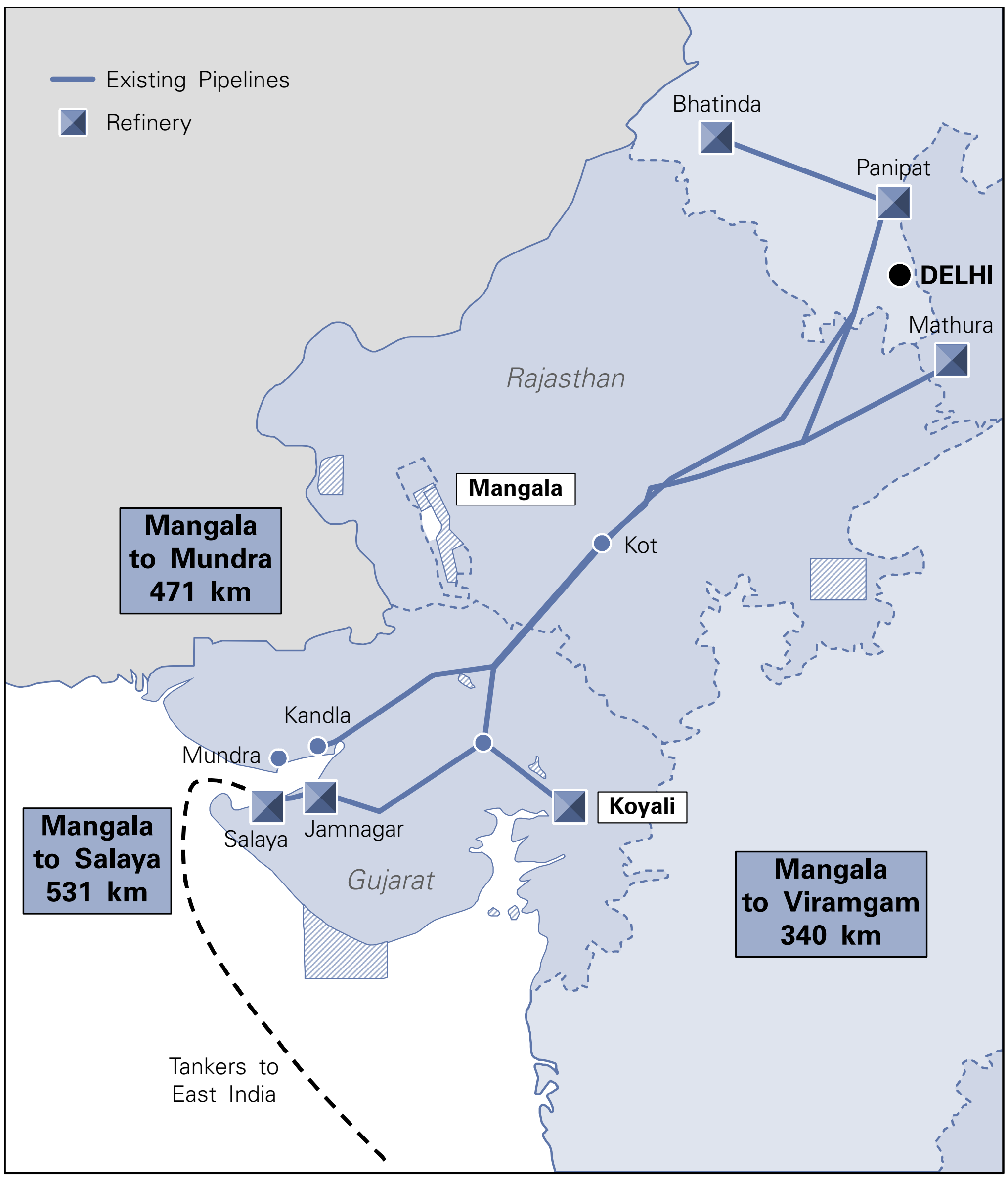
Issues with transportation of crude likely to be resolved soon

Cairn India has been facing uncertainty over offtake of Rajasthan crude because of its inability to reach an agreement with the government nominee Mangalore Refineries and Petrochemicals (MRPL, a subsidiary of ONGC) on the issue of building the pipeline. However, our recent discussions with the Cairn India management indicate that the company is close to resolving the issue. The most likely solution being worked upon is building a crude pipeline by splitting the cost with partner ONGC and connecting the Mangala field to the port of Mundra over a distance of 471 km. The other option would be to connect directly with the port of Salaya at a distance of 531 km. From the port, the crude will be supplied in tankers to MRPL for its refinery on the Indian east coast.

Since India imports about 76% of its crude requirement, Cairn India is bound by the PSC to sell its crude only to a domestic buyer. As of now, MRPL is the government-nominated agent to offtake Cairn India's crude. **However, the MRPL refinery currently processes around 240 Kbopd of crude and given its complexity of about 7.5 on the Nelson Complexity Index, it appears unlikely that MRPL will be able to take the entire peak output of the waxy crude from Rajasthan**. Therefore, we believe that Cairn India will have to look at other evacuation options as well, including supplying a part of the production to refineries in North India. Delay in resolution of this issue could end up delaying production from Rajasthan and also lead to lower realizations for Cairn India.

Therefore, Cairn India and ONGC are also evaluating the options of building pipelines to supply crude to Jamnagar (Reliance/Essar refineries) or connecting to Indian Oil Corporation's existing crude oil pipelines at Viramgam for supplying on to its refineries.

Exhibit 16: Cairn India has multiple options to evacuate Rajasthan crude
Snapshot of the possibilities for Cairn India to evacuate its crude



Source: Company data.

Because of the high pour point of Rajasthan crude, the pipeline needs to be either insulated (along with heating stations at regular intervals) or jacketed with steam. **As a result, the cost of building the pipeline would be about US$1mn/km.** The company has indicated that the total cost of the pipeline including supporting infrastructure will be about US$700 mn, of which Cairn India's 70% share will work out to about US$500 mn. Initial indications are that Cairn India would be allowed to recover this as part of the capex under the PSC, implying that the impact on its valuations will not be significant.

Moreover, we believe that this **pipeline will be a strategic asset for Cairn India** and allow it to control the delivery of its crude; this acquires more significance in the light of the potential upside in Rajasthan from EOR techniques and further exploration.

ONGC may not benefit from production of crude in Rajasthan

ONGC is in negotiations with Cairn India for building the pipeline, but our calculations indicate that commencement of crude production is not necessarily beneficial for ONGC. If ONGC is required to pay the royalty of 20% as well as oil cess for the entire production as per the pre-NELP norms, the NPV of the project may turn out to be negative for ONGC. Hence, there could be some roadblocks to an early resolution of the crude evacuation issue.

Exhibit 17: ONGC stands to lose if it pays both royalty and cess for the entire production
Sensitivity of ONGC's NPV from the Rajasthan asset to royalty and cess payments

US$ mn	Royalty		
Cess (Rs/ton)	**0%**	**10%**	**20%**
0	1,438	960	496
927	1,047	565	(19)
1,854	672	103	(685)
2,575	317	(382)	(1,283)

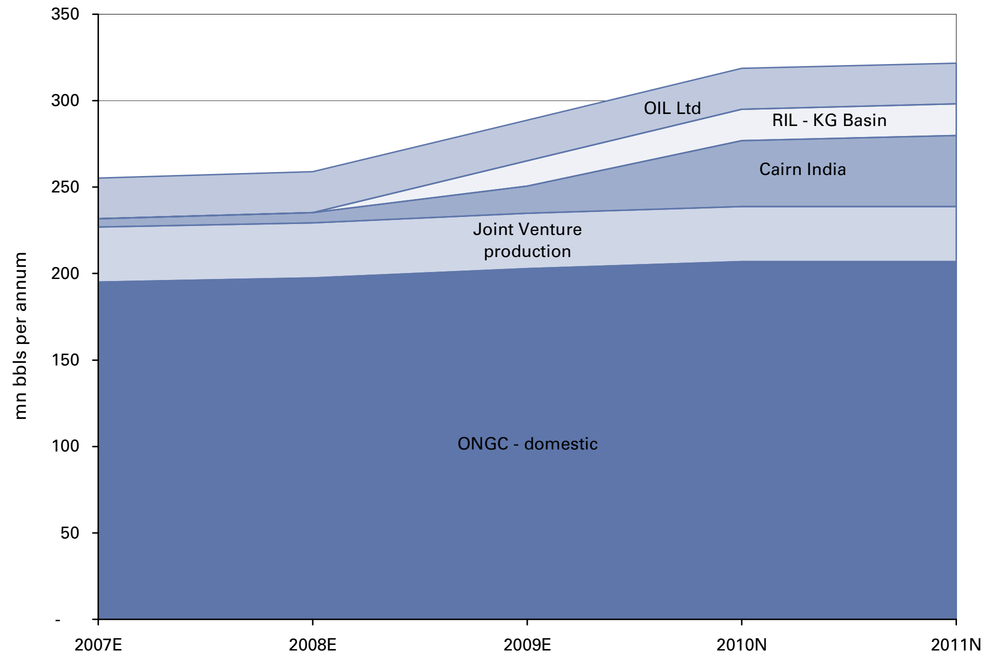
Source: Goldman Sachs Research estimates.

The management has, however, indicated that the final solution is likely to be announced by June 2007. It is possible to work out a solution whereby ONGC will pay full cess to the government, but gets reimbursed by the government for royalty from the latter's share of profit petroleum.

Cairn India likely to contribute about 15% to India's crude supply

The Rajasthan discovery by Cairn India is the largest oil discovery in India since ONGC discovered the Bombay High offshore field in 1974. We expect Rajasthan to start production in mid-2009 and reach gross peak production of 150 Kbopd by 2011E. We estimate that this will constitute about 15% of India's domestic oil production in that year and contribute directly towards substituting crude imports by close to 5% by 2011E. Therefore, the importance of Cairn India's success from an Indian perspective cannot be overemphasized.

Exhibit 18: Cairn India to contribute about 15% to India's domestic crude supply
Breakdown of India's domestic crude oil supply till 2011E



Source: Goldman Sachs Research estimates.

Though there are pending issues in evacuation of the crude, **we expect the government to be proactive in resolving all outstanding issues between Cairn India and ONGC to enable production to begin on time.**

Cairn India to benefit from low lifting cost

Being an onshore field, the Rajasthan asset will offer Cairn India the prospects of low lifting cost[#] in the initial years, thereby boosting its margins. We estimate the average lifting cost of Cairn India to be about US$3.5/bbl during the plateau production period of five years. Implementation of EOR techniques will increase the lifting cost of incremental oil to about US$10/bbl, pulling up the average lifting cost to about US$6/bbl.

Cairn India's overall cash cost will benefit from low government levies as it may not be required to pay royalty and potentially no oil cess also. We estimate Cairn India's total cash cost including government taxes, but before government entitlement, to be about US$6/bbl, before EOR begins. Under the EOR program, the cost will rise to US$9/bbl.

[#] Lifting cost refers to the cash operating cost of oil production before SG&A

Exhibit 19: Cairn India to benefit from low cost of production
Break up of Cairn India's operating costs (US$/bbl)

	2005	2006	2007E	2008E	2009E	2010N	2011N
Lifting cost	2.2	2.2	3.6	3.8	3.1	2.8	3.0
SG&A	0.7	0.7	0.7	0.8	0.6	0.6	0.6
Taxes	3.1	2.9	3.8	3.5	2.9	1.8	1.7
Total cash cost	**5.9**	**5.7**	**8.1**	**8.1**	**6.6**	**5.2**	**5.4**
DD&A	14.0	12.2	15.0	15.0	10.8	9.2	10.0
One-off items	-	-	-	-	-	-	-
Total cost	**19.9**	**18.0**	**23.2**	**23.1**	**17.3**	**14.5**	**15.4**
Total production (mn boe)	8	8	8	9	19	41	44
Rs/US Dollar (year average)	44.3	45.5	44.5	44.5	44.5	44.5	44.5

Source: Goldman Sachs Research estimates.

The lifting cost of the upstream companies globally is on the rise as they get into offshore production and EOR techniques. This does not include the higher government levies which have also increased substantially over the years.

Exhibit 20: Lifting cost of upstream companies is rising
Trend of upstream majors' lifting cost (including SG&A)

	Year (US$ per boe)		
Company	**2003-04**	**2004-05**	**2005-06**
Exxon Mobil	4.15	4.62	5.15
BP	2.95	3.54	4.47
Royal Dutch Shell	4.52	5.83	7.51
Total	2.57	2.74	3.06
Chevron	4.78	5.16	5.97
ONGC	3.30	4.00	4.62

Source: BP Statistical Review.

NAV-based valuation of assets implies target price of Rs133

We have valued Cairn India on the NAV of its assets, with the assets in the production and development phases being individually valued using DCF methodology based on their respective PSCs. We have also valued the recent KG basin gas discovery at EV/boe of US$3 to arrive at a 12-month target price of Rs133, implying a potential upside of about 3% from the current price. We have valued the potential EOR upside of 196 mn barrels of oil recovery from Rajasthan separately from the base case production and included it in the overall NAV valuation. **The NAV calculation is based on a normalized Brent price forecast of US$42/bbl.**

We believe that the separate DCF methodology for each asset is best suited for valuing Cairn India as these assets are at different stages in the sliding scale of government entitlement. Moreover, we believe using any earnings multiple would be inaccurate as Cairn India's earnings profile is back-end loaded in the medium term.

Exhibit 21: Rajasthan contributes more than 75% to the target valuation
NAV valuation of Cairn India

Asset	Value (US$ mn)	Per share (Rs/share)	Methodology
Rajasthan	3,618	90	DCF-based
Rajasthan - EOR	512	13	DCF-based
Ravva	318	8	DCF-based
Cambay	181	5	DCF-based
KG Basin	432	11	at EV/boe of US$3.0
Total EV	**5,060**	**126**	
Net debt (cash)	(272)	(7)	
Equity value	**5,332**	**133**	

Source: Goldman Sachs Research estimates.

Since Cairn India's earnings are highly leveraged to oil prices, the NAV calculation is sensitive to our crude price forecasts, particularly the normalized assumption from 2010E. Our Rs133 NAV for Cairn India uses a base case normalized Brent price assumption of US$42/bbl. **We estimate the NAV of Cairn India to range between Rs125/share and Rs152/share under normalized Brent price assumptions of US$40/bbl-US$50/bbl.**

Exhibit 22: We expect the NAV to reach Rs152/share at normalized Brent of US$50/bbl
Sensitivity of Cairn India's NAV to normalized Brent prices

Normalized Brent Price	NAV of Cairn India
US$/bbl	**Rs/share**
40	125
42	**133**
45	139
50	152

Source: Goldman Sachs Research estimates.

Rajasthan is Cairn India's single-most important asset, at present

Cairn India is effectively a single-asset company today with the Rajasthan crude production slated to begin in 2H2009 and the Ravva and Cambay production likely to decline after 2007.

Exhibit 23: Rajasthan represents nearly 95% of Cairn India's share of reserves, at present
Break up of Cairn India's 2P reserves

(mn boe)	2006	2007E	2008E	2009E	2010N	2011N
Rajasthan						
- Mangala	299.6	299.6	299.6	289.4	263.8	238.3
- Bhagyam	98.0	98.0	98.0	98.0	91.6	85.1
- Aishwarya	39.2	39.2	39.2	39.2	37.0	32.7
- Other fields	5.6	5.1	3.0	5.2	3.2	1.1
Ravva	23.9	19.0	14.6	10.6	7.0	3.8
Cambay	6.4	5.5	5.8	6.4	6.4	4.4
KG-DWN-98/2	-	-	-	-	-	-
Total P1+P2	**472.7**	**466.4**	**460.3**	**448.8**	**409.0**	**365.4**
Rajasthan as % of total reserve	**94%**	**95%**	**96%**	**96%**	**97%**	**98%**

Source: Company data, Goldman Sachs Research estimates.

Although Cairn India's other assets—acquired during the various NELP rounds—appear to have strong potential, we believe that they are unlikely to drive reserve accretion in the medium term. The potential upside to our reserve estimates till then will likely be driven by further exploration in the Rajasthan basin itself.

Valuation of assets vs. valuation of the company

The present single-asset nature of the company leads us to value Cairn India's share price based on its assets rather than the value of the company on an ongoing basis. This methodology, in effect, implies that the company would stop functioning beyond the currently known reserves. Although this is harsh, we believe that with progress in development of the Rajasthan asset—which includes implementation of EOR techniques and exploration and reserve accretion in the exploration zones—the market will start valuing Cairn India as a perpetual entity by valuing the overall cash flows of the company and assigning a terminal growth rate. This could lead to potential upside for Cairn India, in our view.

Exhibit 24: Rajasthan 2P reserves valued at Rs90/share
Detailed base-case DCF of Cairn India's Rajasthan fields

	2007E	2008E	2009E	2010N	2011N	2012N	2013N	2014N	2015N	2016N	2017N	2018N	2019N	2020N	2021N
Production (Kbopd)	**1**	**6**	**34**	**96**	**105**	**105**	**105**	**105**	**105**	**80**	**70**	**68**	**60**	**50**	**40**
Cumulative production (mn bbls)	1	3	15	50	88	126	165	203	241	271	296	321	343	361	376
Producer price (US$/mbtu)	60.3	61.5	61.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
Revenues (US$ mn)	**31**	**126**	**755**	**1,376**	**1,513**	**1,513**	**1,513**	**1,513**	**1,513**	**1,152**	**1,008**	**980**	**864**	**720**	**576**
Cost petroleum entitlement	31	126	755	1,355	175	155	155	155	155	125	113	111	101	89	77
Profit petroleum entitlement	-	-	-	21	1,070	1,086	951	815	815	514	448	434	382	315	249
Incidental income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
less Production costs	(2)	(7)	(40)	(113)	(125)	(125)	(125)	(125)	(125)	(95)	(83)	(81)	(71)	(59)	(47)
less Royalty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pre-tax net cash income (US$ mn)	**29**	**119**	**715**	**1,263**	**1,120**	**1,116**	**981**	**845**	**845**	**544**	**478**	**464**	**412**	**345**	**279**
less tax	3	12	75	132	117	117	103	88	88	27	95	39	22	14	6
Net cash income (US$ mn)	**26**	**107**	**640**	**1,131**	**1,003**	**1,000**	**878**	**756**	**756**	**517**	**383**	**425**	**390**	**332**	**274**
Exploration costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development costs	180	340	315	90	50	30	30	30	30	30	30	30	30	30	30
Pipeline capex	50	200	250	-											
Investment	230	540	565	90	50	30	30	30	30	30	30	30	30	30	30
Free cash flow (US$ mn)	**(204)**	**(433)**	**75**	**1,041**	**953**	**970**	**848**	**726**	**726**	**487**	**353**	**395**	**360**	**302**	**244**
Discounted cash flow (US$ mn)	**(204)**	**(394)**	**62**	**782**	**651**	**602**	**479**	**373**	**339**	**207**	**136**	**139**	**115**	**87**	**64**
Year discounted	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Discount rate	10%														
Present value of free cash flow (US$ mn)	**3,618**														
Value per share of Cairn (Rs)	**90**														
IRR	**30%**														
Implied EV/boe (US$)	**7.60**														

Note: We have not shown the cash flows from 2022N to 2041N due to lack of space

Source: Goldman Sachs Research estimates.

Exhibit 25: WACC for Cairn India works out to 9.9%
Calculation of WACC for Cairn India

Risk free rate	8.3%
Equity risk premium	6.0%
Beta (X)	0.80
Cost of equity	13.1%
CY2007E pretax cost of debt	8.0%
Tax rate	34%
After tax cost of debt	5.3%
Long-term debt to total capital ratio	40.0%
Growth to perpetuity (g)	2.0%
WACC	**9.9%**

Source: Goldman Sachs Research estimates.

Our base case valuation assumes that Cairn India will not pay any royalty and oil cess to the government as per the norms for pre-NELP blocks. We note that though the Cairn India management is confident that they will not be required to pay the cess, the issue is still unresolved. We estimate that the value of the Rajasthan asset drops to Rs70/share from Rs90/share if Cairn India is asked to pay cess at the prevailing rate of Rs2,575/ton.

Exhibit 26: Value of the Rajasthan asset would fall if Cairn India has to pay oil cess
Sensitivity of the Rajasthan asset to various levels of cess payment by Cairn India

Cess (Rs/ton)	NPV	IRR	Implied EV/boe	Value
	US$ mn	%	US$	Rs/share
Base case - Zero	3,618	30	7.60	90
927	3,401	29	7.15	85
1,854	3,091	27	6.50	77
2,575	2,800	25	5.88	70

Source: Goldman Sachs Research estimates.

Valuation appears rich on multiples as earnings are back-end loaded

Cairn India's valuation multiples in the near term appear stretched as benefits from monetization of the Rajasthan block will impact earnings only 2009E onwards. The production will reach plateau levels only in 2010E. However, the current share price has value built in for the Rajasthan asset, as the company has announced the reserve size and production targets. Cairn India's 2009E valuation multiples, in fact, look reasonable in comparison with its regional peers.

Exhibit 27: Cairn India looks expensive on near-term multiples as Rajasthan production begins in 2009E
Comparative valuation of Cairn India vs. global E&P peers within our coverage

	Ticker	GS Rating	Price Apr 17	Mkt cap (US$mn)	EV/DACF (X) 2006E	2007E	2008E	2009E	P/E (X) 2006E	2007E	2008E	2009E	CROCI (%) 2006E	2007E	2008E	2009E	Yield (%)	06 EV/proved Reserves (US$/BOE)
US large-cap E&P																		
Anadarko Petroleum (US$)	APC	Sell	46.40	21,506	12.6	10.5	8.1	7.3	16.8	24.7	15.2	13.7	13.4	9.5	9.9	10.4	0.4	26.8
Apache Corp (US$)	APA	Neutral	74.72	24,903	5.5	5.2	4.3	3.6	10.0	9.7	7.7	6.9	17.3	15.2	15.2	15.4	0.6	13.5
Devon Energy Corp (US$)	DVN	NR	74.69	33,424	6.2	6.3	4.8	4.4	11.9	11.8	8.2	7.9	14.5	14.1	15.0	14.7	0.6	18.5
EOG Resources (US$)	EOG	Neutral	77.35	19,036	7.7	8.3	6.1	5.7	16.0	18.4	11.6	11.0	17.7	15.7	16.4	15.5	0.3	18.9
Murphy Oil (US$)	MUR	Buy	56.52	10,688	8.4	9.4	6.4	5.8	16.9	18.4	12.6	11.9	12.9	10.5	14.4	14.6	1.0	31.1
XTO Energy (US$)	XTO	Buy	56.17	20,772	8.2	6.4	5.9	5.4	13.5	11.8	11.7	11.4	23.4	23.5	21.5	19.8	0.5	19.1
Talisman (US$)	TLM	Neutral	19.24	21,578	5.9	5.9	4.6	4.3	13.4	13.0	9.6	9.5	16.5	16.4	17.0	15.2	0.7	19.4
Chesapeake (US$)	CHK	Neutral	33.34	15,290	5.8	6.5	5.4	5.5	9.2	10.9	9.4	10.9	16.7	15.2	14.0	12.5	0.7	19.6
EnCana (US$)	ECA	Sell*	53.74	44,871	6.9	7.3	6.9	6.1	13.7	13.9	13.7	11.6	19.2	14.1	11.9	12.0	0.7	16.6
US large-cap median					**6.9**	**6.5**	**5.9**	**5.5**	**13.5**	**13.0**	**11.6**	**11.0**	**16.7**	**15.2**	**15.0**	**14.7**	**0.6**	**19.1**
US mid-cap E&P																		
Questar (US$)	STR	Neutral	94.08	8,241	10.1	9.4	8.5	7.7	19.1	17.7	15.4	14.1	11.5	11.3	11.0	11.0	1.0	38.2
Southwestern (US$)	SWN	Neutral	42.97	7,360	18.0	13.7	8.1	6.9	46.0	31.9	17.6	15.0	14.3	15.5	18.4	19.0	0.0	54.1
Ultra (US$)	UPL	Buy	55.50	8,970	21.1	11.2	12.8	9.5	38.8	33.5	22.9	17.4	40.8	29.8	32.1	30.6	0.0	27.1
Newfield Exploration (US$)	NFX	Buy	44.48	5,738	5.1	4.7	4.0	3.7	12.8	11.2	8.8	8.6	17.4	16.5	15.0	14.6	0.0	20.5
Noble Energy (US$)	NBL	Neutral	61.81	11,067	6.8	5.9	5.4	4.3	12.9	12.5	11.5	8.8	17.0	18.2	16.8	17.5	0.5	15.8
Pioneer Natural Resources (US$)	PXD	Neutral	48.05	6,132	8.6	7.6	6.0	5.3	34.6	14.9	11.5	10.3	9.0	10.7	11.9	12.2	0.5	7.7
Pogo Producing (US$)	PPP	NR	51.58	2,997	7.1	5.1	4.5	4.2	22.0	25.8	14.1	14.2	8.2	9.4	9.6	9.5	0.0	15.6
US mid-cap median					**8.6**	**7.6**	**6.0**	**5.3**	**22.0**	**17.7**	**14.1**	**14.1**	**14.3**	**15.5**	**15.0**	**14.6**	**0.0**	**20.5**
Russian E&P																		
Lukoil (US$)	LUKOY	Neutral	86.00	71,260	7.6	7.2	6.8	6.0	9.1	9.0	8.7	8.1	18.0	16.2	15.0	14.7	1.4	3.7
Gazprom Neft (US$)	SIBN.RTS	Neutral	4.06	19,250	4.8	4.6	4.3	4.4	5.9	6.3	6.4	6.7	21.6	19.1	17.6	15.4	7.2	5.8
Russian median					**6.2**	**5.9**	**5.6**	**5.2**	**7.5**	**7.7**	**7.6**	**7.4**	**19.8**	**17.6**	**16.3**	**15.0**	**4.3**	**4.8**
European E&P																		
Statoil (Nkr)	STL.OL	NR	168.25	60,977	6.3	5.7	5.1	4.6	10.2	9.9	9.1	8.5	13.7	14.2	15.0	15.4	5.4	15.7
BG Group (p)	BG.L	Sell	735.00	50,163	9.0	8.5	8.0	7.5	15.6	13.5	12.8	12.4	24.5	22.2	20.2	18.9	1.0	24.4
European median					**7.7**	**7.1**	**6.5**	**6.0**	**12.9**	**11.7**	**10.9**	**10.4**	**19.1**	**18.2**	**17.6**	**17.2**	**3.2**	**20.1**
Asian E&P																		
CNOOC (HK$)	0883.HK	Neutral	6.86	37,587	6.7	7.0	5.6	4.6	9.9	10.8	8.6	7.4	26.6	20.5	21.3	21.2	3.2	15.3
ONGC (Rs) (a)	ONGC.BO	Buy	891	45,687	6.3	5.7	5.2	4.7	9.4	8.8	8.5	8.1	17.3	17.2	16.8	16.5	4.5	7.0
Cairn India (Rs)	CAIL.BO	Neutral	131	5,569	41.0	29.6	23.7	7.2	97.2	71.9	11.2	7.3	1.7	2.4	2.8	7.8	0.0	29.4
PTTEP (Bt)	PTTE.BK	Neutral	91	9,120	6.0	6.2	5.5	4.9	10.9	12.0	11.9	11.7	28.0	23.0	21.4	19.4	3.4	9.6
CNPC (HK) (HK$)	0135.HK	Buy	3.58	2,211	2.5	2.4	2.1	1.9	7.0	6.6	6.3	6.1	23.3	18.5	17.1	15.7	2.9	11.4
OGDCL (Pkr) (b)	OGDC. KA	Neutral	120.20	8,531	7.4	6.0	5.3	4.7	11.0	9.2	8.2	7.3	37.7	37.1	38.4	35.1	5.4	7.2
INPEX (¥) (a)	1605.T	Buy*	992,000	23,128	6.6	5.9	5.6	4.8	16.2	14.1	14.0	12.5	23.5	21.6	18.6	17.6	0.6	10.2
Asian median					**6.6**	**6.0**	**5.5**	**4.7**	**10.9**	**10.8**	**8.6**	**7.4**	**23.5**	**20.5**	**18.6**	**17.6**	**3.2**	**10.2**

(a) For fiscal year ending March (i.e., FY2007E appears as 2006E)
(b) For fiscal year ending June (i.e., FY2007E appears as 2006E)
*This stock is on our regional Conviction Buy/Sell List

Source: Goldman Sachs Research estimates.

Financials: Crude prices and returns

Crude oil: Prices to remain high through to the end of this decade

Our global oil team forecasts US$65/bbl-US$68/bbl for WTI through FY2008E-FY2010E (see Exhibit 5) and believes that the risks to our estimates remain skewed towards the upside. In our view, the sector currently is at the mid-point of what could be a 4-5-year energy upcycle. The essence of our view is that oil prices will stay firm long enough to slow down global demand growth considerably, which we believe is necessary to recreate a spare buffer capacity. We are also not convinced that some of the OPEC producers will have better success in achieving meaningful production growth than the oil super majors have had till now. We believe resilient demand and modest non-OPEC production growth will lend support to our bullish oil price forecast.

Exhibit 28: We have assumed OPEC capacity utilization of about 95% going forward
Our base case global oil supply/demand forecasts

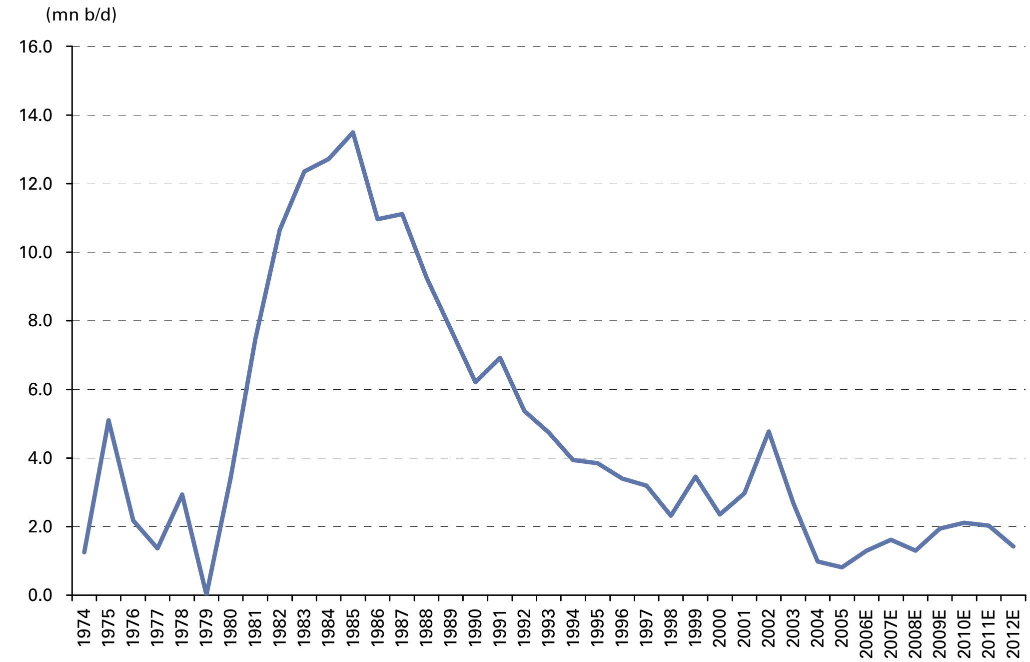
	2007E	2008E	2009E	2010N
Base case assumptions:				
Oil demand (mn b/d)	86.1	87.5	88.9	90.3
Growth (y-o-y, mn b/d)	1.2	1.4	1.4	1.4
Growth (y-o-y, % change)	1.4%	1.6%	1.6%	1.6%
Non - OPEC supply (mn b/d)	51.7	52.4	53.0	53.5
Growth (y-o-y, mn b/d)	0.8	0.8	0.5	0.5
Growth (y-o-y, % change)	1.6%	1.5%	1.0%	1.0%
OPEC NGLs production (mn b/d)	4.7	4.9	5.2	5.4
OECD commercial inventory change (mn b/d)	0.1	0.2	0.2	0.2
OPEC crude oil and NGLs production (mn b/d)	34.6	35.3	36.2	37.1
Growth (y-o-y, mn b/d)	0.3	0.7	0.8	1.0
Growth (y-o-y, % change)	0.9%	2.0%	2.4%	2.7%
OPEC spare capacity (mn b/d)	**1.6**	**1.3**	**1.9**	**2.1**
OPEC production capacity utilization	**95%**	**96%**	**95%**	**94%**

Source: Goldman Sachs Research estimates.

We have assumed annual global oil demand growth at about 1.5% till FY2010E, implying absolute growth of nearly 1.4 mnbpd. We expect the OECD oil inventory levels to remain tight during this period and non-OPEC supply growth to be modest.

We believe a global spare capacity of 4 mnbpd-5 mnbpd needs to be rebuilt for prices to come down substantially. The upward movement of the industry cost curve suggests that a price of about US$45/bbl is required for marginal producers to make return on capital.

Exhibit 29: Spare crude capacity to remain constrained going forward
OPEC crude oil spare production capacity, 1974-2012E



Source: IEA, Bloomberg, Goldman Sachs Research estimates.

Considering the possible supply concerns arising from adverse geopolitical scenarios and weather-related disruptions, we could witness oil prices beyond our current estimates. We reiterate our view that the weakness in oil prices during the early part of this year was led by a warmer-than-expected winter and gamma hedging activities[1]. It did not represent the beginning of a downtrend, but rather was an aberration in the secular energy upcycle.

Cairn India's waxy crude likely to sell at a discount to Brent

Cairn India's Rajasthan crude is sweet but waxy in nature with pour point of more than 40°C. This implies that the crude will sell at a discount to Brent prices for the following reasons:

(1) It will lead to higher proportion of heavy-end distillates after primary distillation at the refinery

(2) There will be difficulties in transporting and storing crude as it would solidify at temperatures lower than 40°C

Although Cairn India's PSC with the government mentions that the pricing of the crude will be benchmarked to international prices, the actual benchmarking is yet to be decided. The company is discussing the issue with a committee of industry experts and will be presenting its case to the government shortly. We expect clarity to emerge on the final pricing mechanism over the next 12 months.

[1] Gamma hedging refers to selling of crude futures by traders as hedge against the put options on crude (sold to the oil companies), which become exercisable under low crude prices.

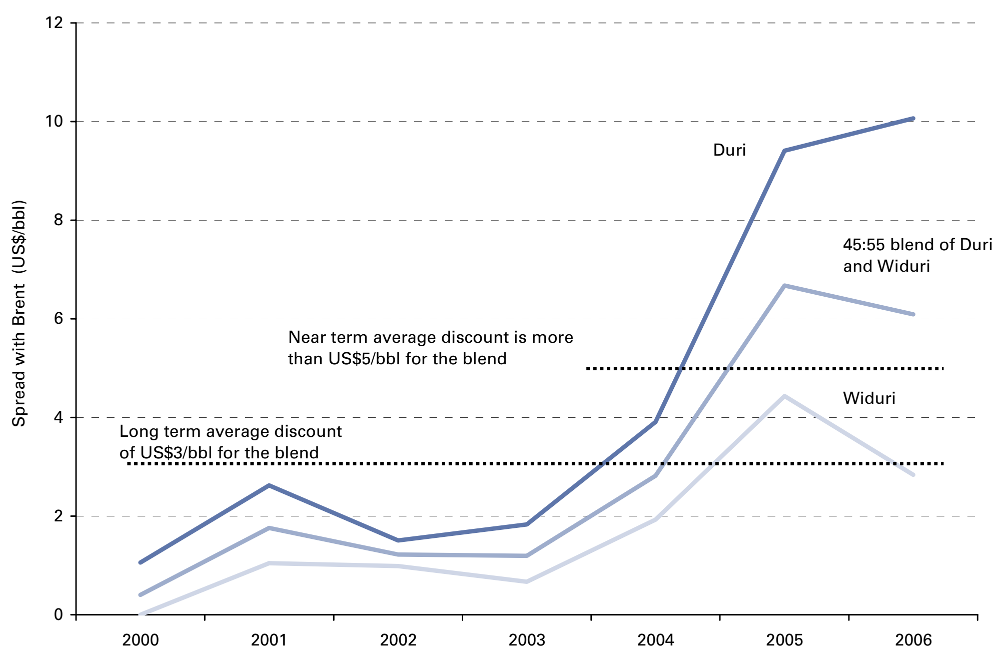
Exhibit 30: The benchmark for Rajasthan crude is likely to be a Duri-Widuri crude blend
Comparison of quality parameters of different sweet crudes

Nature of Crude	API°	Sulphur content	Pour point
Mangala	27.3	low	40-45°C
Bhagyam	26	low	39-45°C
Aishwarya	27-32	low	40-45°C
Brent	38.1	low	-20°C
WTI	40	low	-5°C
Tapis	44.6	low	21°C
Bonnylight	37	low	43°C
Duri	20.8	low	10°C
Widuri	33.2	low	46°C

Source: Company data, Bloomberg.

If we take a look at the quality of various crude oil varieties quoted in the market, we find that Indonesian crude (Duri and Widuri) has the closest resemblance to the Cairn India crude in terms of quality. Although both are sweet, Duri is heavier than Cairn India's Rajasthan crude but has a lower pour point. Widuri, on the other hand, has a high pour point comparable with Rajasthan crude but is much lighter. We expect the benchmark crude for Cairn India to be a likely blend of Duri and Widuri.

Exhibit 31: Long-term average discount of Duri-Widuri blend to Brent is about US$3/bbl
Trend of discounts of Duri and Widuri to Brent prices



Source: Bloomberg.

Using a 45:55 blend of Duri:Widuri and based on the long-term historical price movements, we have arrived at a normalized discount of US$3/bbl to Brent for Cairn India's crude from 2011N. This implies that our normalized Rajasthan crude price is US$39/bbl against our long-term Brent forecast of US$42/bbl. The near-term discount is higher at about US$5/bbl for 2009E, which is the last year of our explicit crude price forecasts.

High goodwill on balance sheet results in low return ratios

Prior to the initial public offering in 2006, Cairn India acquired the Indian upstream assets from Cairn UK Holdings (100% subsidiary of Cairn Energy Plc.) with consideration of cash and shares amounting to US$6 bn. We have accounted the transaction under the purchase method as per Indian AS14. In the absence of information on the fair value of the assets acquired by Cairn India, we have assigned book value to these assets based on consolidation of the statements of the three unlisted subsidiaries of Cairn Energy Plc which were holding them. The book value thus calculated works out to US$213 mn. This is low compared with US$6 bn that Cairn India paid for these assets because the book value does not reflect the full reserve potential. Notably, Petronas Malaysia has taken 10% stake in Cairn India at Rs160/share—in line with the US$6 bn valuation.

The difference between the amount paid by Cairn India to its parent and the book value has resulted in a large goodwill amount of US$5.8 bn as of 2006 that needs to be carried on to Cairn India's balance sheet. This goodwill needs to be adjusted for impairment annually.

The goodwill constitutes about 80% of the total size of the company's balance sheet for 2007E. This will depress the return ratios of the company calculated on the basis of gross cash invested (GCI). The return ratios, however, improve when calculated ex-goodwill and move up sharply from 2009E owing to commencement of the Rajasthan asset's monetization. From thereon, Cairn India's ROCE exceeds that of regional peers.

Exhibit 32: Cairn India's return ratios look healthy on an ex-goodwill basis
Trend of Cairn India's key return ratios

	2007E	2008E	2009E	2010N	2011N
Gross Cash Invested (Rs mn)	344,835	365,501	404,397	462,245	505,565
Gross Cash Invested (ex goodwill) (Rs mn)	86,316	106,982	145,879	203,727	247,046
Invested Capital (Rs mn)	286,718	300,706	320,440	325,296	314,415
Invested Capital (ex goodwill) (Rs mn)	28,199	42,187	61,922	66,778	55,896
Cash Return On Cash Invested	2%	3%	8%	11%	9%
Cash Return On Cash Invested (ex goodwill)	**10%**	**10%**	**22%**	**25%**	**19%**
Return on Invested capital	1%	1%	7%	10.5%	8%
Return on Invested capital (ex goodwill)	**10%**	**10%**	**36%**	**51%**	**47%**

Source: Goldman Sachs Research estimates.

Exhibit 33: Cairn India's ROCE exceeds that of regional peers
ROCE of Cairn India vs regional peers

Company	2007E	2008E	2009E	2010N
Cairn	1.0%	1.3%	7.0%	10.5%
Cairn (ex goodwill)	**10.0%**	**9.6%**	**36.0%**	**51.0%**
ONGC	23.7%	20.7%	19.2%	14.7%
PTTEP	20.3%	17.3%	15.7%	8.8%
CNPC (HK)	20.6%	19.3%	18.0%	10.7%
Santos	13.2%	13.5%	13.9%	5.8%

Source: Goldman Sachs Research estimates.

We have not built in any dividend payout in the medium term

We have not built in dividend payments from Cairn India in our period of explicit forecasts. Although the company may have higher capex commitments than our estimates because of higher EOR and exploration spending, we believe that there could be pressures from the parent Cairn Energy Plc to pay dividends.

Risks to our view: Project delay is the biggest risk

Delay in commencement of crude production in Rajasthan

We expect crude production from the Mangala field to commence in 2H2009E. In case the production gets pushed back by six months to 2010, we estimate 10% potential downside to our 12-month target price of Rs133. The impact is magnified in our estimates because we have explicit crude price forecasts only till 2009E and use normalized crude forecasts after that. Therefore, a delay of six months effectively denies Cairn India any benefit from our bullish medium-term crude price forecasts.

Weaker than expected crude price/failure to find buyers

We have normalized our crude price forecasts from 2010E and estimate that every US$1/bbl decrease in the crude price will reduce Cairn India's earnings by about 4%. Also, we have built in US$3/bbl discount to Brent for Cairn India's long-term crude realizations as it is waxy in nature. In case Cairn India fails to tie up firm offtake agreements for crude, this discount could widen or Cairn India's plateau production could get pushed back beyond our current estimate of 2011E.

Cairn India is asked to pay oil cess

As per the pre-NELP terms, as ONGC is the government nominee, it is required to pay royalty and oil cess for the entire crude production in Rajasthan. However, the PSC signed with Cairn India for the Rajasthan block does not mention this explicitly leading to ambiguity on the issue. The management intends to go in for arbitration on this matter and expects the issue to be resolved in its favor within the next 12 months. In the event Cairn India is required to pay the cess, we estimate that value per Cairn India share for the Rajasthan block would come down from Rs90 to Rs70 depending upon the cess payment.

Less than expected potential EOR upside

The management has not yet adopted the EOR techniques in the Rajasthan block, and the relevant experiments for the adoption of a particular EOR strategy with regard to the reservoir and pressure fluid flow are still being carried out in laboratories. We believe there is a possibility that the field dynamics may not be conducive for implementing EOR. This may result in the recovery factor of the block being less than 40% and the plateau production to last for just 3-5 years. As a result, the potential recovery upside of 196 mn barrels from Rajasthan may not materialize.

ESOPs may lead to potential equity dilution

The share incentive schemes formulated for Cairn India employees provide for a further grant of 178 mn stock options carrying a right to acquire equity shares. These outstanding options constitute about 10% of the issued capital and will have a potentially dilutive effect when exercised over the next 10 years, in our view.

Related party transactions

Cairn India is a subsidiary of the UK-listed Cairn Energy Plc, which has stakes in the three Ganga Valley fields where Cairn India is the operator. Therefore, there will be significant related party transactions involved in terms of exploration and operations. Although we believe that the management will be transparent in terms of proper disclosures, this could be a potential risk for minority shareholders of Cairn India.

Discount to domestic state-owned refiners as subsidy

Cairn India has not offered any discount on its production from Ravva to the state-owned refineries till date. However, in the event of high crude prices being sustained for a long period, we see a remote possibility of the government urging private E&P players to give discounts on their crude sales leading to lower realizations.

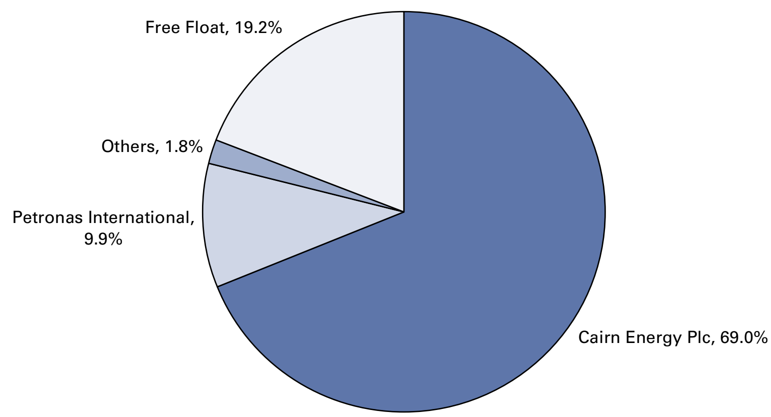
Company profile: It's currently all about Rajasthan

Cairn India was formed in August 2006 by the acquisition of Indian assets from Cairn Energy Plc. It is a pure E&P play, the assets of which could be bifurcated into a development block and 12 exploration blocks.

Its major discovery to date is in the Rajasthan basin (RJ-ON-90/1) having gross in-place reserves of 3.66 bn barrels, currently under development. Ravva and Cambay are its producing properties which constitute about 90% of Cairn India's revenue till 2008E, until the production from Rajasthan comes onstream in 2009E.

The company's major shareholder is the UK-listed Cairn Energy Plc., which made the initial investment in the company and holds about 69% stake post listing. Cairn India got listed on the Indian stock exchanges in January 2007 and has a free float of 19%. Petronas Malaysia is a strategic investor with 10% stake in the company.

Exhibit 34: Cairn India shareholding pattern



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.

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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)

Nilesh Banerjee: Asia Pacific Energy.

Asia Pacific Energy: Bharat Petroleum, China Oilfield Services, China Petroleum & Chemical (A), China Petroleum and Chemical (ADS), China Petroleum and Chemical (H), CNOOC, CNOOC (ADR), Formosa Petrochemical Corp., Gas Authority of India, GS Holdings, Hindustan Petroleum, Indian Oil Corp., Oil & Gas Development Co. Ltd., Oil & Gas Development Co. Ltd. (GDS), Oil & Natural Gas Corp., PetroChina, PetroChina (ADR), PTT Public Company, PTTEP, Reliance Industries, Reliance Industries (GDR), Reliance Petroleum, S-Oil Corp., SK Corp., Thai Oil.

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	Rating Distribution			**Investment Banking Relationships**		
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