

Initiating Coverage

Sector: Oil & Gas

Target Price	Rs145
Market cap (bn)	Rs263.8/US\$6.5
52-week range	Rs160/111
Shares in issue (mn)	1,778.4
Bloomberg	CAIR IN
Reuters	CAIR.BO
BSE Sensex	14,862
Website	www.cairnindia.com

Shareholding Pattern (%)

Promoters	69.0
FII's	11.0
Banks/MFs/FIs	4.6
Others	15.5

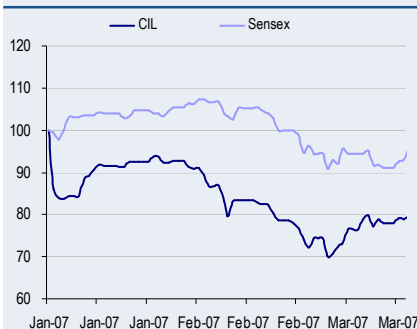
(As of 31 March 2007)

Price Performance (%)

	1M	3M	12M
Absolute	3.5	16.8	-
Relative*	1.2	1.2	-

* To the BSE Sensex

Relative Performance



(As of 5 July 2007)

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High potential trapped in bureaucracy

Investment highlights

- **Five fold increase in production from CY10:** Cairn India (CIL) has lined-up Rs66 bn capex for the development of Rajasthan fields. We expect overall production to increase more than five fold to around 115,000 bopd in 2010. Cash flows from the Rajasthan production are expected to contribute Rs53/share (37%) to our fair value.
- **Reserve upsides contribute Rs73/share:** CIL's P2 reserve numbers of 472 mboe is based on a recovery factor of 32.5%. We expect the company to extend its high operational efficiency at Ravva and the Cambay basins to Rajasthan resulting in improved recovery and additional 386 mboe reserve upside. This accounts for Rs73/share of our fair value.

Investment concerns

- **Higher cess can significantly impact CIL's fair value:** We believe CIL would be liable for cess to the government. The risk lies in whether the cess would be applicable at US\$2.9/bbl (our assumption) or US\$8/bbl. At US\$8/bbl, Rs14 is shaved off our base case fair value of Rs145.
- **Key issues like pipeline and refinery can impact CIL's cash flows:** Issues pertaining to pipeline cost recovery and refinery at Rajasthan, being debated by the government, carry a significant risk of CIL's production at Rajasthan being delayed or trimmed. Other concerns like waxy nature of crude oil from Rajasthan, volatility in international crude price and exchange rates can have a major impact on CIL's cash flows.

Valuations

- **Fully priced:** Our core asset value of CIL of Rs72/share is based on our sum-of-the-parts valuation (DCF value). Based on CIL's successful track record in India, we believe there exists an upside potential of Rs73/share to its core asset value, considering a higher recovery factor for the Rajasthan fields. This figure can go up significantly based on further reserve accretion due to new discoveries from other exploration blocks. At our fair value of Rs145/share, we believe CIL is fairly valued. We initiate coverage with a Hold rating.

Exhibit 1: Financial summary

(Rs mn)

Y/E December	CY07E	CY08E	CY09E	CY10E
Net Sales	9,858	9,741	53,672	73,987
EBITDA	9,237	9,147	47,131	63,793
EBITDA (%)	93.7	93.9	87.8	86.2
PAT	5,567	5,513	36,432	49,837
NPM (%)	56.5	56.6	67.9	67.4
EPS (Rs)	3.1	3.1	20.5	28.0
EPS growth (%)		(1.0)	560.8	36.8
CEPS (Rs)	3.3	3.2	21.8	30.9
ROCE (%)	2.8	2.7	12.2	14.1
RONW (%)	1.9	1.9	11.0	13.1
PE (x)	47.3	47.7	7.2	5.3

Source: Company data, ASK Securities. Note: Valuations as of 5 July 2007.

Investment highlights

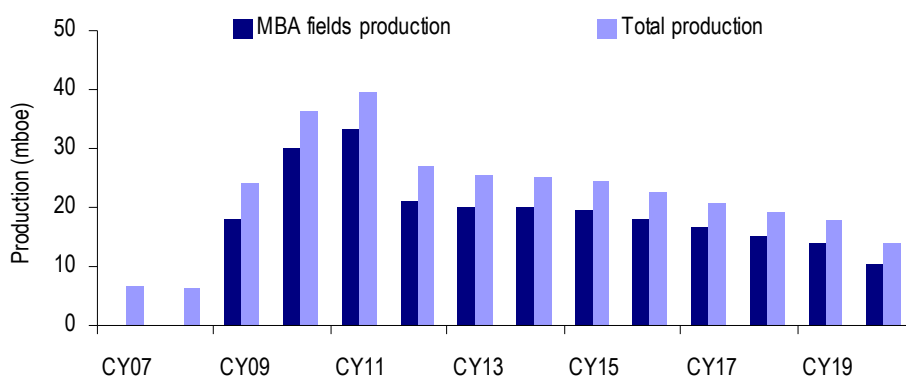
Cairn India, the recently incorporated Indian subsidiary of Cairn Energy plc, UK, owns one of India's largest oil discoveries at Rajasthan with 3.6 bboe in place reserves. The company has lined-up an overall capex of US\$2 bn for development of this block that is expected to generate 5x increase in production from current 23,000 boepd to 115,000 boepd by 2010. Considering its high operational efficiency, evident at Ravva and Cambay basins, we expect CIL's operations at Rajasthan, too, to be highly efficient both in terms of low operating cost (around US\$5/bbl) and higher recovery factor (around 35%).

Five fold increase in production from CY10

The company would first develop the Mangala field, wherein we expect an initial production of 63,000 bopd (net to Cairn) in CY09E.

- **Rajasthan blocks to generate 85% of production in CY10:** CIL has lined-up Rs66 bn capex for the development of the Rajasthan fields. The company would first develop the Mangala field, wherein we expect an initial production of 63,000 bopd (net to Cairn) from 2Q CY09E. In CY10E, we expect Bhagyam and Aishwarya fields to start contributing to overall production and expect the total production from Rajasthan to be at 87,000 bopd (85% of overall production) by CY10. This would raise the overall production by more than 5x to around 115,000 bopd in 2010 (see Exhibit 2).

Exhibit 2: Production trend (net to CIL) - marching upwards



Source: Company, ASK Securities.

- **Funding the US\$2 bn capex for Rajasthan not an issue:** CIL would be undertaking an overall capex of around Rs65 bn (US\$1.6 bn, net to CIL) for the development of the prospective Mangala, Bhagyam and Aishwarya fields (capex spread over the life of the field). This capex is in addition to US\$680 mn already spent on the Rajasthan block till end 2006. The capex for the development of Mangala field alone would be around Rs48 bn (US\$1.2 bn) and the rest is divided among the Bhagyam and Aishwarya fields. If CIL gets the mandate for laying the pipeline, another US\$350 mn (net to Cairn) would be added to the above capex figure, which we have factored in our calculations. To fund this capex, the company has obtained debt facility of around US\$850 mn. This, in addition to the IPO proceeds of around US\$600 mn and internal accruals, puts CIL in a comfortable position for funding.

CIL would be eligible for a tax holiday for the first seven years of its production.

- Attractive terms for production sharing contract:** CIL's production sharing contract (PSC) with the government for the Rajasthan block gives a 30% working interest to the government's nominee (i.e. ONGC), with CIL holding the rest (70%). The entire production from the Rajasthan fields would be sold to ONGC/MRPL in the above case. Another positive is that CIL would be eligible for a tax holiday for the first seven years of its production. In addition to the above, ONGC would be paying royalty, annual area rental charges and license fees to the government. CIL would be realising international parity prices for the hydrocarbon produce, after adjusting for its nature and quality (see Exhibit 3).

Exhibit 3: PSC mechanism for Rajasthan



Source: Company, ASK Securities.

High possibility of reserve upsides

The company currently has 15 blocks in India.

- Treasure hunt expertise:** CIL has been one of the most successful exploration companies in India with regards to its discoveries at Rajasthan and Laxmi & Gauri fields. The company currently has 15 blocks in India, of which the Rajasthan block is under development and two (i.e. Ravva and Cambay) are currently producing. Going forward, there is a possibility of CIL encountering significant discoveries from its 13 exploratory wells.

CIL has managed to achieve 60% recovery factor at Ravva.

- High operating efficiency:** CIL's production at Ravva fields has the distinction of operating at one of the lowest operational costs (less than US\$1/boe) in the world. CIL has managed to achieve a 60% recovery factor at Ravva, raising the gross production levels from 3,500 boepd (in 1994) to the current 50,000 boepd. Going forward, we expect the company's current plateau production at Ravva to extend for another three years till 2010, and then an annual decline of around 3% till 2020. CIL has also displayed similar efficiency at Laxmi and Gauri fields that are currently producing around 25,000 boepd (gross).

Cost efficiency to be extended to Rajasthan.

- **Operating efficiency to be extended to Rajasthan:** We believe CIL would be able to extend its operational efficiency at Ravva and Cambay basins to Rajasthan. According to CIL management, the operating cost of production at Rajasthan is expected to be around US\$4/bbl, well below the international average of around US\$6-8/bbl. We have, however, estimated average operating cost levels at around US\$5/bbl for the Rajasthan fields.
- **Additional recovery through EOR/IOR:** CIL's P2 reserve numbers (472 mboe) is based on the recovery factor of 32.5% and its proportionate share in the Rajasthan field at 70% (ONGC holds the balance). Going forward, the company intends to improve the recovery factor by applying high-end technologies for enhanced oil recovery (EOR)/incremental oil recovery (IOR). For our base case scenario, we expect an upside of 78 mboe to CIL's recoverable reserves, which is 40% of 196 mboe EOR figures stated by the company. We believe this upside would contribute around Rs15/share to CIL's core asset value (see Exhibit 4).

Exhibit 4: EOR/IOR upsides

Scenarios	Worst case	Base case	Best case
EOR upside (mboe)	196	196	196
Risk Weight	35%	40%	45%
Risk weighed reserves	69	78	88
EV/boe (US\$)	8	8	8
EV (US\$ mn)	512	585	659
Value (Rs/share)	13	15	17

Source: Company, ASK Securities.

We have factored in reserve upsides of around 308 mboe translating into an upside of Rs58.

- **Upsides from in-place reserves:** CIL's Rajasthan blocks hold estimated in place reserves of 3.6 bboe, offering good potential for future upside considering its P2 figures of 472 mboe. The company has currently drilled 140 wells, which has led to 22 discoveries. There are around 150-200 additional wells to be drilled over the next two years that can result in more discoveries and corresponding upsides to its current P1 and P2 reserves. For our base case scenario, we have factored in reserve upsides of around 308 mboe (around 15% of gross P3 estimates of 2.9 bboe, net of P2 numbers) that translates into an upside of Rs58 (see Exhibit 5).

Exhibit 5: Upside from P3 estimates

Scenarios	Worst case	Base case	Best case
Potential P3 reserves (mboe)	2,932	2,932	2,932
Possibility to convert to P2	10%	15%	20%
Potential upsides from Rajasthan (mboe) (Net to Cairn)	205	308	410
EV/boe (US\$)	8.0	8.0	8.0
EV	68,961	103,441	137,921
Value/share	39	58	78

Source: Company, ASK Securities.

Concerns

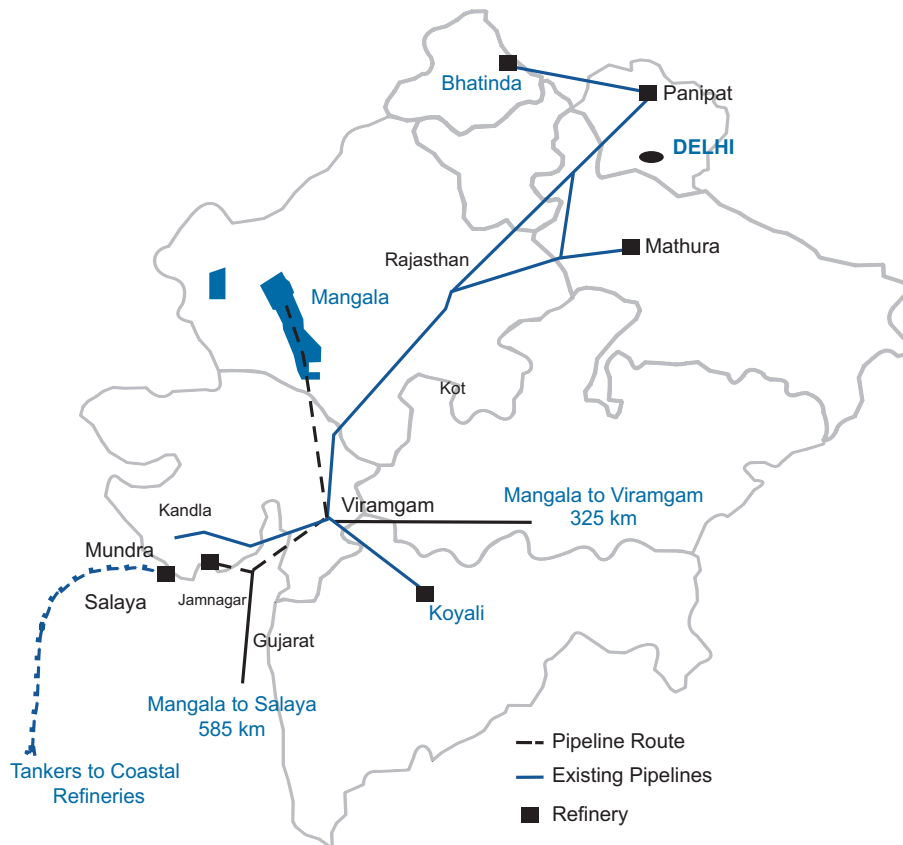
As per the government, CIL has to pay a cess on all its production from the Rajasthan fields.

- **Higher cess can significantly impact CIL's fair value:** There is an ongoing litigation with regard to cess payment on the oil produced from the Rajasthan fields. As per the government, CIL has to pay a cess on all its production from the aforesaid fields, which, as per CIL's management, is not specifically mentioned in the PSC and hence not payable. If the outcome of the above is against CIL, then the company would have to pay cess on its production.

In case CIL would have to pay cess, the other issue arising out of it is whether the cess is applicable at US\$2.9/bbl (prevailing at the time of signing the PSC) or US\$8/bbl (current applicable rate). In our base case scenario, our fair value for CIL assumes that it would be eligible for a cess of US\$2.9/bbl. However, if CIL is mandated to pay cess at the rate of US\$8/bbl, then it will erode its value by Rs14, which has been factored into our worst-case scenario.

- **Clarity on the pipeline issue pending:** MRPL was nominated by the government of India to build the pipeline traversing from the place of discovery at Rajasthan to the nominated refiner either in Gujarat/ Mangalore or to any particular port in Gujarat. ONGC has, however, shelved its plans to build a refinery at Rajasthan. It has, instead, decided to share the cost of pipeline with CIL and shift the delivery point from Mangala to Virangam in Gujarat (see Exhibit 6).

Exhibit 6: Pipeline details



Source: Company, ASK Securities.

The pipeline project, if undertaken by CIL, would require an investment of around US\$500 mn (US\$350 mn net to CIL). The key concern is whether the government would allow cost-recovery for the capex on the pipeline. CIL is awaiting government's clarification on the same. We have, however, factored that the government would respond in CIL and ONGC's favour. Any delay in this project could delay production and significantly impact Cairn's cash flows

- **Pricing issues considering waxy nature of crude oil:** The crude that Cairn has encountered in Rajasthan is waxy and viscous in nature (pour point of 40o). This would require pre-heated pipeline infrastructure to preventing this crude from solidifying and blocking the operations. It would be difficult for CIL to assure a continuous power supply for these pipelines in Rajasthan. Also, the refineries utilising this crude would require secondary processing unit and would generate higher low value middle and heavier distillates. CIL's management believes that this crude will trade at around a 5% discount to Brent. We, however, have factored in around 8-10% discount to Brent for our calculations.
- **Fluctuations in Brent prices and USD/INR exchange rate:** Fluctuations in crude prices and USD/INR exchange rates have a significant impact on CIL's cash flows. Every rupee change in exchange rate impacts CIL's fair value by Rs4 and every dollar change in average Brent price impacts CIL's fair value by Rs2-3. We have factored crude prices at the long-term average price of US\$55/bl and the long-term USD/INR exchange rate of Rs40 for our calculations (see Exhibit 7).

Exhibit 7: Impact of crude price and USDINR on CIL's fair value

Brent (US\$/bbl)	51	53	55	57	59
USDINR (Rs)					
37	122	126	133	137	141
38	126	130	137	141	146
39	129	134	141	145	150
40	133	138	145	150	154
41	137	142	149	154	159
42	141	146	153	158	163
43	145	150	157	162	167

Source: Company, ASK Securities.

- **Uncertainties associated with the exploration:** Exploration business, in general, carries a high degree of risk with regards to actual and estimated levels of production that can be obtained from a particular field. CIL's operations at Rajasthan can encounter certain difficulties with regards to the geological and geophysical factors associated with the fields there. However, the company's successful track record of operations at Ravva and the Cambay basin mitigates this risk to a certain extent.

Valuation

Our DCF valuation generates EV/boe for Rajasthan fields at US\$6.9, and US\$6.8 for the company as a whole.

- **Core asset value at Rs91:** We have used sum-of-the-parts valuation for the company, valuing its entire assets separately. Our DCF valuation generates EV/boe for the Rajasthan fields is US\$6.9, and is US\$6.8 for the company as a whole (see Exhibit 8). This translates into a value of Rs72/share for the core assets of Cairn. Key assumptions for our calculations:
 - WACC of 12.8%.
 - Crude realisation for Rajasthan at 8-10% discount.
 - OIDA cess of US\$2.9/bbl (Rs900/tonne).
 - Operating cost of production for Rajasthan at around US\$5/bbl.
 - Long-term average for Brent at around US\$55/bbl.
 - Average USD/INR exchange rate of Rs40.

Exhibit 8: Valuation of Cairn's core assets

OIDA Cess at 2.9\$/bbl	2P Reserves (mboe)	EV (US\$ mn)	EV/boe (US\$)	Value (Rs/share)
Mangala	300	2,086	7.0	29
Bhagyam	98	825	8.4	19
Aishwarya	39	105	2.7	2
Total Value for MBA	437	3,015	6.9	51
Other Rajasthan Fields	13	80	6.2	2
Total Rajasthan	450	3,095	6.9	53
Ravva	106	564	5.3	13
Laxmi & Gauri	20	238	11.9	6
Total Core asset Value	576	3,897	6.8	72

Source: Company, ASK Securities.

We arrive at a fair value of Rs145 for CIL based on our base case assumptions (see Exhibit 8), at which we believe the company offers limited upside. We initiate coverage with a Hold rating.

- **Fairly valued:** We have arrived at our fair value based on three scenarios - worst case, base case and best case. These scenarios differ by OIDA cess that would be applicable to CIL and potential reserve upsides to current figures as stated by the company. Our recommendation is based on the base case scenario, wherein we have assumed US\$2.9/bbl OIDA cess to be applicable and 205 mboe reserves upside potential to the company's current recoverable reserves (576 mboe). We arrive at a fair value of Rs145 for CIL based on our base case assumptions (see Exhibit 9), at which we believe the company is fairly valued. We initiate coverage with a Hold rating.

Exhibit 9: Sum-of-the-parts valuation for Cairn

Scenarios	Worst Case	Base Case	Best Case
OIDA cess for Rajasthan (US\$/bbl)	8.0	2.9	-
Rajasthan Value (Rs/ Share)	39	53	61
% total	35.6	36.6	35.0
Ravva Field Value (Rs/share)	13	13	13
Laxmi & Gauri fields value (Rs/share)	5.6	5.6	5.6
Core asset value (Rs) (A)	58.0	72.0	80.0
Potential Upsides			
EOR			
Reserves (mboe)	196	196	196
Risk Weight	35%	40%	45%
Risk weighed reserves	69	78	88
EV/boe (US\$)	8	8	8
EV (US\$ mn)	512	585	659
Value (Rs/share) (B)	13	15	17
Reserve upsides			
Reserves (mboe)	205	308	410
EV/boe (US\$)	8	8	8
EV (US\$ mn)	1,642	2,463	3,284
Value (Rs/share) (C)	39	58	78
Total upside (Rs/share) (B+C)	52	73	94
Total Value for Cairn (A+B+C)	110	145	174

Source: Company, ASK Securities.

Financials

Profit & Loss statement

(Rs mn)

Y/E December	CY07E	CY08E	CY09E	CY10E
Net Sales	9,858	9,741	53,672	73,987
EBITDA	9,237	9,147	47,131	63,793
EBITDA (%)	93.7	93.9	87.8	86.2
Depreciation	213	213	2,421	5,091
EBIT	9,025	8,934	44,710	58,702
Interest	0	0	2,788	2,788
Exploration write-offs	1,260	1,260	630	0
PBT	7,765	7,674	41,292	55,914
Tax	2,197	2,161	4,859	6,077
Tax rate %	28.3	28.2	11.8	10.9
PAT	5,567	5,513	36,432	49,837
Shares (mn)	1778.4	1778.4	1778.4	1778.4
EPS (Rs)	3.1	3.1	20.5	28.0

Source: Company, ASK Securities.

Balance sheet*

(Rs mn)

Y/E December	CY07E	CY08E	CY09E	CY10E
Equity share capital	17,784	17,784	17,784	17,784
Share premium account	266,759	266,759	266,759	266,759
Reserves and surplus	5,567	11,081	47,513	97,350
Networth	290,110	295,623	332,055	381,893
Total Debt	38,747	38,747	38,747	38,747
Current liabilities	50,928	60,970	46,078	42,202
Total liabilities	379,785	395,340	416,880	462,842
Gross Block	67,672	67,880	152,801	159,706
Less: Depreciation	1,114	1,326	3,747	8,838
Net Block	66,559	66,554	149,054	150,868
Goodwill	259,160	259,160	259,160	259,160
Exploration & Dev wells in progress	35,470	63,953	0	0
Investments	4	4	4	43,147
Total current assets	18,506	5,669	8,662	9,667
Total assets	379,785	395,340	416,880	462,842

Source: Company, ASK Securities. Note: *Indicative, actual figures to be declared by the company may differ significantly.

 **Notes**

 **Notes**

Rating Structure

Our Rating Structure is based on the following levels of expected Absolute Returns:

Rating	Target Price (if the value exceeds the Current Market Price)
Buy	by more than 15%
Hold	by 8% to 15%
Sell	is below 8%

The above rating structure has to be looked at in conjunction with the following:

- Our ratings structure is primarily meant to reflect our directional view on the stock.
- The target price is purely indicative and may not entirely capture certain non-quantifiable triggers and qualitative aspects of a company, which may influence our rating.
- Our ratings and target price are with a 12-month view. Thus, our ratings would not necessarily be revised based on short-term stock-price volatility. But we would review both periodically depending upon events that we believe are significant.

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