

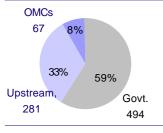


Oil & Gas

Surge in oil price (US\$/bbl)



FY12E Under-recovery sharing (Rs b)



Oil price surge: Increasing our FY12/long term assumptions

Cairn India top gainer with FY12E EPS increase of 17%

We are increasing our FY12 and long-term oil price assumption to US\$90/80/bbl from US\$80/75/bbl, respectively due to the improved global crude demand outlook and the recent instability in the oil rich Middle East and North Africa (MENA) region. At the new oil price assumptions, the under recovery in the system is expected to be about Rs842b. At 92% subsidization by government and upstream companies, the OMCs' share of under recovery is expected to be Rs67b and their OMCs' FY12 EPS are expected to dip by 1.4-2.6%. ONGC is our top sector pick due to attractive valuations and capped subsidy sharing. Cairn India, being an upstream pure play, stands to gain most from the oil price increase, with FY12E earnings increasing by 17%.

Crude price reaches a two-year high; increasing oil price assumptions: Brent crude increased 1.5x in the past 12 months. ~50% of the rise has been in the past two months, driven by unrest in oil exporters in the Middle East and North Africa. We are increasing our Brent crude price assumptions from US\$80/75/bbl for FY12/long-term to US\$90/80/bbl, respectively. Our FY12 price assumption is lower than the current price as we believe OPEC's spare capacity of 5.2mmbbl/d will provide some respite.

We model Rs2/liter diesel price hike, estimate FY12 subsidy of Rs842b: We believe that it is unlikely that the government will deregulate diesel prices in the medium term, given (1) high oil prices, (2) forthcoming state elections and (3) inflation concerns. Nevertheless, we expect some price hikes in the coming months, especially since in India's FY12 Budget there was no duty relief on crude oil or on products. We model a diesel price hike of Rs2/liter in FY12, leading to our estimate of under-recoveries of Rs842b, with 33% (Rs281b) to be shared by upstream companies, 59% (Rs494b) by the government and the rest by downstream companies, so as to maintain their RoEs of at least 10%.

Revising estimates, Cairn India the largest beneficiary: We are revising our estimates to factor in higher oil prices. ONGC's earnings seem to be protected as the government has reiterated the upstream sharing at one-third levels. OMC stocks will be under pressure due to less than expected relief on under-recoveries and a delay in compensation from the government. Cairn India, by virtue of being an upstream pure play, is the largest earnings beneficiary from increase in our oil price assumptions. We increase our target price for Cairn India to Rs346 (earlier Rs323).

We model government sharing at Rs494b in FY12

Revising estimates; Cairn India the largest beneficiary

Oil Bonds/Cash				Upstream	■ ON	/IC's sha	ring	
		1,033	3					
773	_	329			787	ı	842 67	
163 257				461	261		281	
353		713		145 260	448		494	
FY0	8	FY09		FY10	FY11	E	FY12E	

	FY1	2E	Chg	FY1	Chg	
	Previous	Revised	(%)	Previous	Revised	(%)
Upstream	companie	s				
ONGC	31.6	32.2	1.9	31.9	32.3	1.3
GAIL	31.5	31.2	(1.0)	33.0	32.8	(0.7)
Cairn India	41.1	48.2	17.4	45.8	51.5	12.3
Oil marke	ting comp	anies				
HPCL	39.4	38.8	(1.4)	41.4	41.0	(1.0)
BPCL	61.0	59.6	(2.3)	63.5	62.2	(2.0)
IOC	39.4	38.4	(2.6)	44	43.4	(1.4)

Source: Company/MOSL

Motilal Oswal

Revising long term oil price assumptions

We are increasing our Brent crude price assumptions for FY12 from US\$80/bbl to US\$90/bbl and for the long term from US\$75/bbl to US\$80/bbl. Brent crude price has increased 1.5x in the past 12 months, of which ~50% rise has been in the past two months, driven by unrest in oil exporting Middle East and North African countries. While the difference between the two global benchmark crudes, WTI and Brent has widened to US\$18/bbl, Brent is the more relevant crude from India's point of view, which we have modeled in our estimates.

Increasing FY12 Brent oil price to US\$90/bbl (US\$/bbl)

	FY11	FY12E	FY13E	Long-term
Earlier oil price	82.7	80	75	75
Revised oil price	85.2	90	80	80
Change (%)	3	13	7	7

Source: Industry/MOSL

Oil price reaches a two-year high

Brent crude price has been on a continuous uptrend since its lows of US\$30/bbl in December 2008, to US\$114/bbl now. The earlier price rice was driven by the improving global economy, however the recent price increase was related to unrest in oil exporting Middle East and North African countries.

Brent has reached US\$114/bbl; 1.5x rise in the past 12 months



Source: Bloomberg, MOSL

Crude supplies under threat due to civil unrest

	Oil Supply			Spare	Remarks
	Nov-10	Dec-10	Jan-11	Capacity	
Algeria	1.27	1.27	1.27	0.03	At risk
Angola	1.66	1.62	1.65	0.19	
Ecuador	0.47	0.48	0.48	0.02	
Iran	3.68	3.68	3.66	0.04	At risk
Kuwait	2.29	2.32	2.32	0.23	At risk
Libya	1.56	1.56	1.58	0.22	Ongoing unrest, oil production disrupted
Nigeria	2.18	2.26	2.24	0.26	
Qatar	0.82	0.82	0.82	0.18	At risk
Saudi Arabia	8.50	8.60	8.60	3.50	
UAE	2.29	2.32	2.37	0.33	
Venezuela	2.19	2.20	2.21	0.14	
Iraq	2.42	2.45	2.66	0.05	At risk
Total OPEC	29.33	29.57	29.85	5.19	
Sudan (non-OPEC)					At risk

Source: IEA, Bloomberg, MOSL

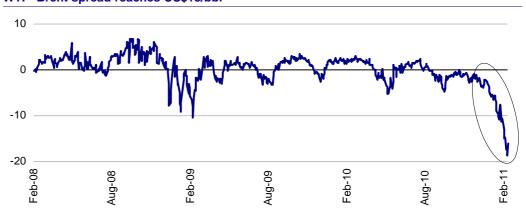
Risk of continued political unrest in MENA countries

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WTI-Brent differential has widened....

The price spread between Brent (European crude) and WTI (US crude) has reached record levels of ~US\$18/bbl. Brent trades at US\$114/bbl, while WTI trades at US\$96/bbl. Historically, WTIL has been at a slight premium to Brent due to its superior quality.

WTI - Brent spread reaches US\$18/bbl



Source: Bloomberg, MOSL

Similar wide spreads were observed in 2009, however they were largely attributed to financial contracts/speculative trading. Various reasons are offered for the current price differentials but no clear explanation can be given for such differentials.

We believe that WTI is trading away from crude market differentials, but it is difficult to predict whether the spreads will narrow and when. Few pointers which lead to our belief that Brent is a better indicator are:

- 1. WTI is a landlocked crude and given the constraints in the US pipeline network, free movement is restricted, resulting in oversupply and hence the dampened price.
- 2. Other crude in the US, named LLS (Light Louisiana Sweet) trades near the Brent price (in spite of inferior quality to WTI, API of 35.6 and sulfur content of 0.37%).

No arbitrage opportunity for India in WTI-Brent differential

... Brent more relevant to Indian refiners

The Indian basket is benchmarked to a blend of Brent, Oman and Dubai crude. (The Indian basket is an average of Oman and Dubai for sour grades and Brent (dated) for sweet grade in the ratio of 67.6:32.4). We understand most refiners are benchmarked to Brent and hence the WTI price is not relevant for Indian refiners.

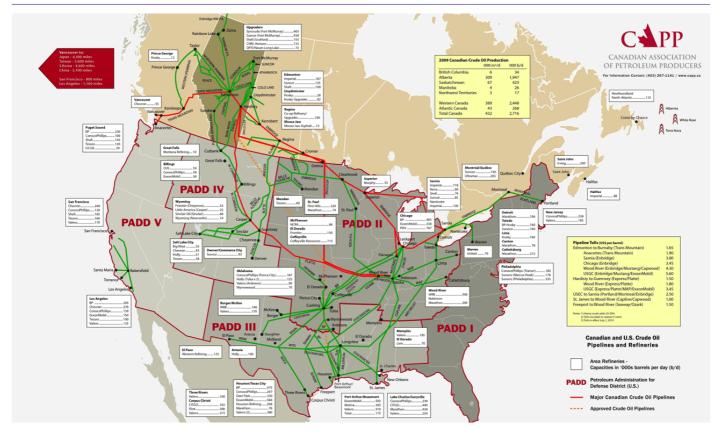
Comparing WTI and Brent

	WTI	Brent	Remarks
Price (US\$/bbl)	96	114	Spread widened to ~US\$18/bbl
Region	US	Europe	Brent is a blend of crude from 15 different oil fields
Quality Parameters			WTI is ideal for gasoline production while Brent is ideal
			for middle distillates
API gravity	39.6	38.3	WTI is lighter than Brent
Sulfur content (%)	0.24	0.37	Brent is less sweet than WTI
Logistics	Land locked; can only	Easily transported	WTI has transport limitations due to capacity
	be moved through pipelines	by sea	constraints
Contract Trading	NYMEX	Intercontinental	WTI contract trading is more liquid than Brent; though
		Exchange	Brent has picked up in recent months

Source: Company/MOSL

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WTI Crude is landlocked US crude



US pipeline network

- The US pipeline network converges at Cushing, Oklahoma, where WTI is traded. These pipelines are unidirectional.
- Currently the storage capacity at Cushing is nearly full.
- Lack of crude off-take capacity has resulted in oversupply at Cushing, driving down prices.

Who will benefit from this spread?

- Crude benchmarks except some in the US are largely on Brent.
- Very few US refiners (only in the mid-West) with a physical pipeline network benefit from this.
- Even the US-based LLS crude price is connected to Brent.

What is the way out?

- New capacity to be added to US pipelines.
- Make some pipelines bi-directional.

Motilal Oswal

Total deregulation unlikely in the near term, but we expect Rs2/liter diesel price hike in FY12

It seems unlikely that the government will deregulate diesel prices in the medium term, given (1) high oil prices, (2) forthcoming state elections and (3) inflationary concerns. Nevertheless, we believe there is a strong possibility of some price hikes in the coming months, especially since in India's FY12 Budget there was no relief on customs duty on crude oil or excise duty on products. We now expect FY12 under-recovery to be Rs842b and expect the government to share 59% of it.

Political compulsions hinder policy decisions

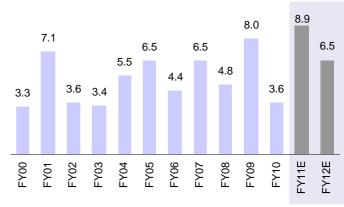
It seems unlikely that government will deregulate the diesel prices in the medium term given the (1) high oil prices, (2) forthcoming state elections and (3) impact on inflation. At current oil prices OMCs are losing Rs11/liter on the sale of diesel, Rs23/liter on kerosene and Rs290/cylinder on LPG. Nevertheless, we believe there is a possibility of some price hikes in diesel prices in coming months given significant higher losses and since diesel is the largest contributor (50% of total) to the under-recoveries.

Similar to previous years, we believe the government's sharing will be finalized at the end of the year when OMCs finalize their annual accounts. The Budget 2011-12 proved to be a disappointment for the sector as, against high expectations, the government did not cut customs and excise duties to alleviate the under-recovery situation.

State elections likely to impede bold policy decisions

States	Term End
Assam	May-11
Kerala	May-11
Tamilnadu	May-11
West Bengal	Jun-11
Uttarakhand	Mar-12
Punjab	Mar-12
Manipur	Mar-12
Uttar Pradesh	May-12

Inflation worries to impact policy decisions (such as diesel deregulation) (%)



Source: GOI/MOSL

Impact of fuel price hike on inflation

- 10% hike in petrol price increases inflation by 0.1%, while 10% hike in diesel price increases inflation by 0.5%.
- In case of diesel the impact on inflation is higher due to cascading impact on other goods and services.

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We model Rs2/liter diesel price hike; estimate FY12 subsidy at Rs842b

We model a diesel price hike of Rs2/liter in FY12, leading to our estimate of underrecoveries of Rs842b, to be shared 33% (Rs281b) by upstream companies, 59% (Rs494b) by the government and the rest by downstream companies, so as to maintain their RoEs of at least 10%.

We estimate FY12 under-recoveries of Rs842b; call on government to share Rs494b

(Rs b)	FY08	FY09	FY10	9MFY11	FY11E	FY12E
Fx Rate (Rs/US\$)	40.3	46.0	47.5	45.7	45.5	45.0
Brent (US\$/bbl)	82.3	84.8	69.6	80.2	85.2	90.0
Gross Under recoverie	es (Rsb)					
Petrol	73	52	52	27	27	-
Diesel	353	523	93	173	343	347
PDS Kerosene	191	282	174	135	194	217
Domestic LPG	156	176	143	135	224	278
Total	773	1,033	461	470	787	842
Sharing (Rsb)						
Oil Bonds/Cash	353	713	260	210	448	494
Upstream	257	329	145	155	261	281
OMCs sharing	163	(9)	56	105	79	67
Total	773	1,033	461	470	787	842
Sharing (%)						
Oil Bonds	46	69	56	45	57	59
Upstream	33	32	31	33	33	33
OMCs sharing	21	(1)	12	22	10	8
Total	100	100	100	100	100	100

Source: Company/MOSL

Sensitivity of FY12 under-recoveries to oil price

-			Rasi	e case					Assum	ing no	diesel n	rice hik	Δ	
		(\$1.1.1)												
	Brent	(\$/bbl)	70	80	90	100	110		Brent (\$/bbl)	70	80	90	100	110
te	S\$)	44	265	401	762	1,124	1,486	ste S\$)	44	265	553	915	1,276	1,638
×),),	45	281	472	842	1,212	1,582	22 ≤	45	281	624	994	1,364	1,734
Ē,	<u>&</u>	46	297	543	921	1,300	1,678	Fx (Rs		317	695	1,074	1,452	1,830
*Base case assumes Rs2/ltr hike in diesel prices											Source	e: Compar	ny/MOSL	

*Base case assumes Rs2/ltr hike in diesel prices

Increasing ONGC's share in upstream from 80% to 81% for FY12 and beyond based on 9MFY11 trend

> Expect net realization of US\$61.4/bbl in FY12

	FY08	FY09	FY10	FY11E	FY12E	FY13E
Exchange Rate (Rs/US\$)	40.2	45.8	47.5	45.7	45.0	44.0
Brent Crude Price (US\$/bbl)	82.3	84.7	69.7	85.2	90.0	80.0
Production Details						
Domestic Production (mmtoe)	48.3	47.9	47.8	48.2	49.1	51.6
OVL Production (mmtoe)	8.8	8.8	8.9	8.8	8.9	8.9
Group Production (mmtoe)	57.1	56.6	56.7	57.0	58.0	60.6
Sales Details						
Domestic Sales (mmtoe)	44.4	43.3	43.0	43.2	44.4	47.1
OVL Sales (mmtoe)	8.8	8.0	8.9	8.8	8.9	8.7
Group Sales (mmtoe)	53.2	51.3	51.9	51.9	53.3	55.8
Subsidy Sharing (Rs m)	220,001	282,250	115,559	213,258	227,322	116,898
Oil Price Realization (US\$/b	bl)					
Gross	85.5	88.0	71.7	87.8	92.5	82.5
Upstream Discount	32.6	39.1	15.6	29.4	31.1	16.0
Net	52.9	49.0	56.2	58.4	61.4	66.5
Change (%)	19.6	-7.4	14.7	4.0	5.1	8.3
EPS (Consolidated)	23.2	23.1	22.7	27.3	32.2	32.3
					Source: C	ompany/MOS

ONGC: Earnings protected at 1/3rd under-recovery sharing by upstream companies

Source: Company/MOSL

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GAIL: Improved gas transmission and petchem bussiness to soften subsidy burden in FY12

We model GAIL to share 8% of the upstream sharing

	FY08	FY09	FY10	FY11E	FY12E	FY13E
Exchange Rate (Rs/US\$)	40.2	46.1	47.5	46.0	45.0	44.0
Subsidy (Rsb)	12.9	17.8	13.3	20.6	22.5	11.5
Natural Gas Transmission						
Volume (mmsmd)	82	83	107	119	134	146
Average Tariff (Rs/mscm)	763	827	817	897	1,059	1,094
LPG Transmission						
Volume ('000 MT)	2,754	2,744	3,160	3,373	3,474	3,578
Average Tariff (Rs/MT)	1,416	1,391	1,416	1,440	1,440	1,440
Petrochemicals						
Petchem Sales ('000 MT)	391	423	409	384	475	534
Realization (Rs/kg)	66	67	70	70	70	67
EBIT (Rs/kg)	32	29	32	28	25	22
LPG & Liq HC						
Sales ('000 MT)	1,348	1,405	1,444	1,380	1,435	1,464
Realization (US\$/MT)	732	748	608	787	800	710
EPS (Rs)	20.5	22.1	24.8	28.5	31.2	32.8

Source: Company/MOSL

Cairn's SOTP increases to Rs346/sh

Rs/sh US\$M Revised Previous Remarks Rs B **DCF** Based Rajasthan Block - Base 7,915 346 236 219 Rajasthan Block - EOR 27 DCF Based 3,524 154 25 Ravva DCF Based 465 20 11 10 Cambay 277 12 6 6 **DCF** Based KG-DWN-98/2 - Shallow Water 250 12 6 2P gas reserves of 3.7tcf @ US\$4/boe -537 -19 Less: Net Debt / (Cash) FY12 end -37 -14 **Base Value** 12,967 580 306 282 **Potential Upsides** Rajasthan Block Upside from current 0 0 0 Exploration continues in development area current dev area 0 0 0 Addition of new area Most likely addition is North. in development Appr Area 1,056 26 1.8bboe valued at US\$2/ Contingent resource from 49 26 smaller fields boe; 30% GCoS Other exploration assets 600 28 15 1bboe resources valued at US\$2/boe; 30% of GCoS 322 **Target Price** 14,623 656 346

Source: Company/MOSL

Cairn India, a pure play on oil prices, stands to benefit from an increase in oil prices. We are increasing our SOTP based target price to Rs346 (earlier Rs322).

The Cairn-Vedanta deal approval by the government will to remain an overhang on the stock

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