Oil & Gas

January 7, 2009 Strictly confidential

ANTIQUE

Sun sets on oil era

- Contrary to market expectations, we believe that oil prices to remain lower for a longer period of time as against consensus estimates of USD60/bbl, USD82/bbl, USD90/bbl and USD96/bbl for 2009, 2010, 2011 and 2012, respectively.
- We reduce our oil price assumptions to USD50/bbl for 2009, USD56/bbl for 2010, and long-term assumption to USD60/bbl for 2011, which is increased by USD1.5/bbl every year thereafter.
- Taking a cue from estimations of international agencies, we also estimate that oil demand growth to remain negative in 2008 and 2009 by 350Mbbl/d and 450Mbbl/d, respectively, while the oil supply capacity would continue to grow from ongoing projects.
- Due to the above demand-supply mismatch, the spare capacity (indicator of oil fundamentals) is expected to rise as high as 7MMbbls or 8% of demand by 2010, peaking in 2012.
- We also discount the theory that the marginal cost of production would provide floor to falling oil prices, since with falling commodity prices and increased availability of contractors, capital costs could decline by as much as 30%.
- Taking a historical reference from the 1979-80 oil shock and the global recession that followed, we found that oil prices remained in the range of USD10-30/bbl for 20 years between 1983 and 2003.
- We estimate that earnings of Indian upstream companies would have a significant downside risk due to lower oil prices. We initiate coverage on **Cairn India Ltd. (CAIR IN, SELL, CMP: INR179, TP: INR144), GAIL (GAIL IN, SELL, CMP: INR211, TP: INR171) and ONGC (ONGC IN, SELL, CMP: INR719, TP: INR594).**

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Our oil price assumptions are 30% lower than consensus estimates.

Summary

A continuing weak economy, which would cause lack of demand, we believe, would be the key reason for oil prices to remain lower over a longer period of time. However, consensus estimates still do not reflect lower oil prices in the medium to longer term. After seeing a dramatic rise in oil prices during 2008 and continuous structural build-up during 2003-07, market participants are reluctant to contemplate a lower oil price scenario.

Contrary to consensus estimates, we believe that oil prices to remain lower for a longer period of time. We lower our oil price assumptions for 2009 to USD50/bbl, 2010 to USD56/bbl, and long-term price assumption to USD60/bbl. Our oil price assumptions vis-à-vis consensus, on an average, are lower by around 30% for 2009-12.

Antique and consensus estimates on oil prices (USD/bbl)

WTI	2009	2010	2011	2012
Antique	50	56	60	62
Consensus	60	82	90	96
Diff between Antique and consensus	**(17%)**	**(32%)**	**(33%)**	**(36%)**

Source: Bloomberg, Antique

The key reasons for the continuous depressed oil prices are as follows:

- As per IMF estimates, the global economy is expected to expand only by 2.2% in 2009, after clocking an average growth of 4.5% during 2003-07. In advanced economies, the output is forecast to contract on a full-year basis in 2009, the first such fall in the post-war period. We believe that current recessionary conditions would have a dampening impact not only on demand growth, but also on the affordability of oil at higher prices.
- With the economic slowdown, we expect global oil demand to contract by 450MMbbl/d in 2009 after shrinking by 350MMbbl/d in 2008. This would be the first consecutive contraction in oil demand growth after the 1981 recession.
- However, supply would continue to rise in the medium term from ongoing projects due to sunk cost economics. Also, a significant reduction in upstream capital costs by about 30% would also make projects feasible in a lower oil price environment. This would lead to continuity in global supply additions at least till 2013.
- Due to this supply-demand mismatch, the spare capacity, which on average stood at 2.0MMbbl/d during 2005-07, is expected to grow even further through 2009-12. The spare capacity is likely to rise from 2.7MMbbl/d in 2007 to peak in 2012 at 8MMbbl/d. The excess spare capacity would also help in removing the permanent geopolitical risk premium, which had been built into the oil price since 2003.
- Non-fundamental factors such as the decline in the US dollar, the increased speculative index investing and the 'fear factor' about the adequacy of oil supplies are also in rapid retreat now.

Recommendation summary

Company	Recommendation	CMP	Target price	Downside	FY10e EPS	PE (x)	Valuation
Cairn India Ltd.*	SELL	179	144	-20%	2.7	68	DCF
GAIL	SELL	211	171	-19%	17.7	12	SOTP
ONGC	SELL	719	594	-17%	66.6	11	SOTP

*Source: Bloomberg, Antique *Note: For Cairn India EPS is for CY2009.*

CMP as of 6th Jan., 2009

Taking a cue from history

Historically, every recession since the early 1970s has followed a period of high oil prices. However, the excessive leverage and under-pricing of risk are also central to the current downturn. In the current down turn, oil prices played what has been described as a 'contributing role' by reducing consumer spending and confidence, and placing the burden on many businesses, both large and small.

Since 1970, world GDP growth fell after every oil shock.

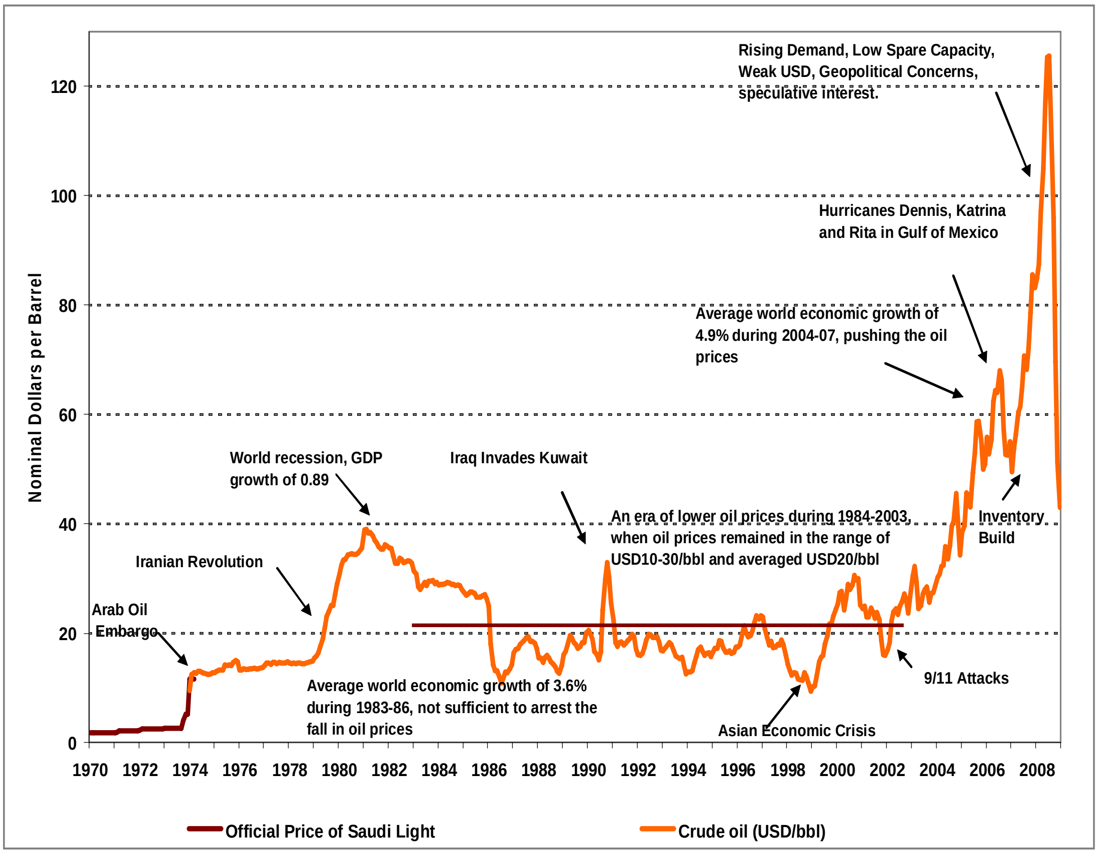
In the early 1970s, the global GDP was growing at annual rates of 6-9%. The so-called first oil shock, which took place in 1973, restricted the GDP growth in 1974-75 to less than 2%. Similarly, the GDP grew at 6-7% during 1976–79, the year of the Iranian revolution and the accompanying second oil shock. For 1980–82, the average growth was again below 2%. From 1983 to 1988, it recovered to around 6%.

After 1980, oil prices began a 6-year decline, which culminated with a 46% price drop in 1986. This was due to reduced demand and over-production, which caused cracks in OPEC's unity. Oil prices remained on a low trajectory during 1983-2003. Prices saw a small spike again in 2000. In 2001, the GDP growth registered a similar drop.

The highest average annual oil price prior to 2004 was USD36/bbl in 1980. For 2004, 2005, 2006 and 2007, the annual price of WTI crude averaged USD41/bbl, USD56/bbl, USD66/bbl and USD72/bbl, respectively, as the GDP continued to grow at 6-7% over this period.

After 1981 recession, oil prices remained lower for 20 years.

Oil prices remained low for 20 years after the 1981 recession.



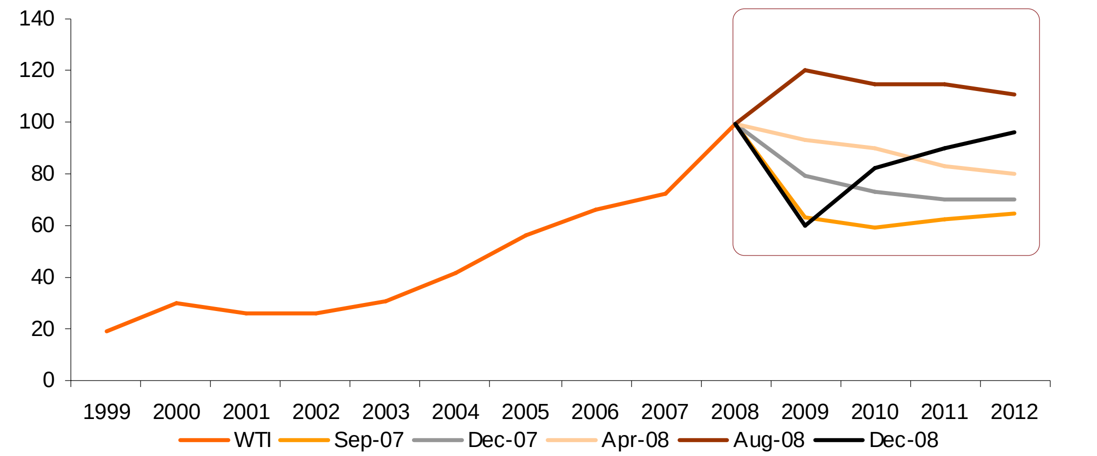
Source: EIA, Antique

Consensus still bullish on oil prices, assumptions has a down side risk.

Consensus estimates still do not reflect lower oil prices

Consensus estimates on oil prices are still very bullish. These estimates indicate a USD82/bbl and USD90/bbl for 2010 and 2011, respectively, and even reflect a higher price assumption at USD96/bbl for 2012, which we believe amounts to ignoring the fundamentals. In fact, looking at the history of consensus estimates, we found that current oil price estimates are higher than what they were one year ago, despite economic fundamentals being considerably weaker than what they were at that time. While in September 2007, the oil price assumption averaged USD62/bbl for 2009-12, the current assumption averages 43% higher at USD89/bbl. The current high oil price assumption also reflects high oil prices seen in 2008.

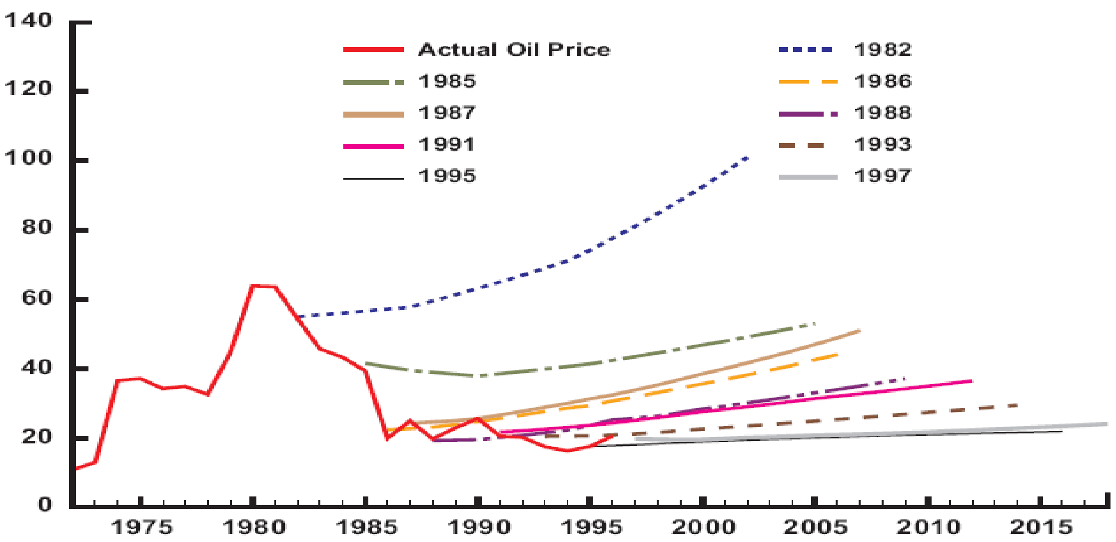
Oil price assumptions to come down significantly (USD/bbl)



Source: Bloomberg, Antique

In our opinion, further scope exists for these assumptions to come down, as oil prices continue to remain lower going forward. This is similar to what had happened after the 1979 oil shock, when oil price assumptions continued to fall with price assumptions drifting lower during 1982-97.

Oil price-falling assumptions every year (USD/bbl)



Source: California Energy Commission

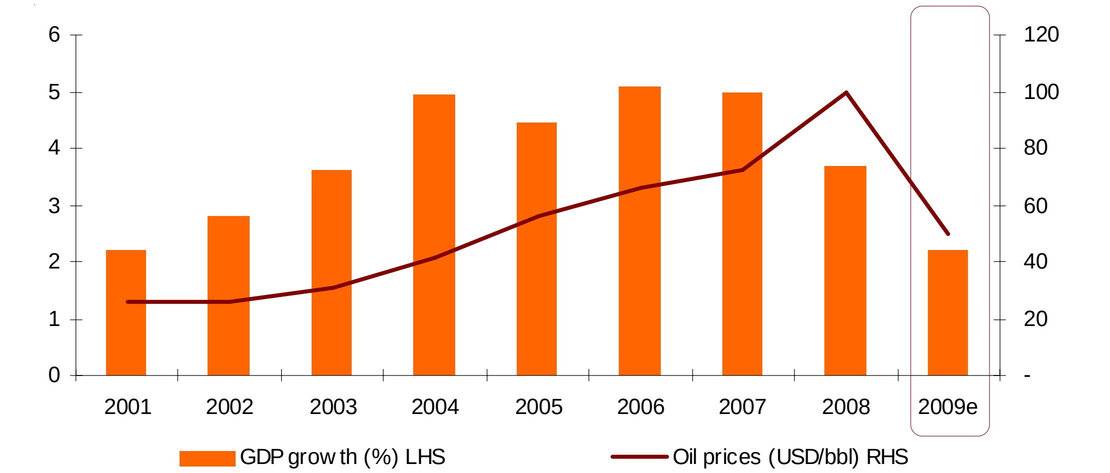
Interpreting factors that would contribute to lower oil prices during 2009-12

Global economic growth – Single most important variable for oil demand growth

Global economic growth for 2009 is estimated at 2.2%.

The IMF downgraded world economic growth estimates to 2.2% in 2009 from its earlier estimate of 3%. After averaging 4.5% between 2003 and 2007, the global GDP growth is now expected to average 2.2% in 2009. In its recent world economic outlook, the IMF also mentioned that the prospects for global growth have deteriorated over the past months due to the financial sector's continued de-leveraging, and producer and consumer confidence taking a hit. In advanced economies, the output is forecast to contract on a full-year basis in 2009, the first such fall in the post-war period. Growth rates in emerging and developing economies are estimated at 5%, which is higher than in earlier business cycle troughs (for example, 1990, 1998, and 2001). However, the IMF estimates that the cyclical downturn in emerging economies is of a similar magnitude to that in advanced economies, when measured relative to higher trend growth rates in line with past cycles.

Global demand growth and changes in oil prices



Source: EIA, CERA, Bloomberg, Antique

Global oil demand expected to contract in 2009

World oil demand growth is expected to remain negative during 2008 and 2009.

We believe that a sharp deterioration in the global economic outlook for 2009 would lead to a second consecutive decline in world oil demand growth. At the beginning of 2008, most international agencies had anticipated that the global oil demand would grow by around 1.2MMbbl/d and 1.5MMbbl/d in 2008 and 2009, respectively, after averaging 1.6MMbbl/d in the preceding 5 years. Our current outlook for demand growth for 2008 and 2009 is negative at -350Mbbl/d and -450Mbbl/d, respectively. Most reputed international oil agencies also expect oil demand to contract in 2008 and 2009, which would be the first consecutive fall in oil demand after the 1981 recession. This sharp reduction in demand has been a significant factor in the oil price decline.

Table of demand growth estimates by international oil agencies (Mbbl/d)

Agencies	2008	2009
IEA	(200)	440
EIA	(53)	(445)
CERA	(300)	(300)
OPEC	(100)	(150)

Source: IEA, EIA, CERA, OPEC and Antique

Despite lower prices, we do not expect the demand to increase because of the overwhelming impact of weaker economic activity. What happens next to oil prices depends greatly, as in the case of 2003-07, on the pace of the global economic growth. But this time around, the question is how deep and how long the recession would be, and how big would be the hit on consumer spending. But even as demand recovers with the economy, supply from projects underway would also continue to increase at a greater pace, which was a missing factor during 2003-07.

Spare capacity would continue to rise till 2012

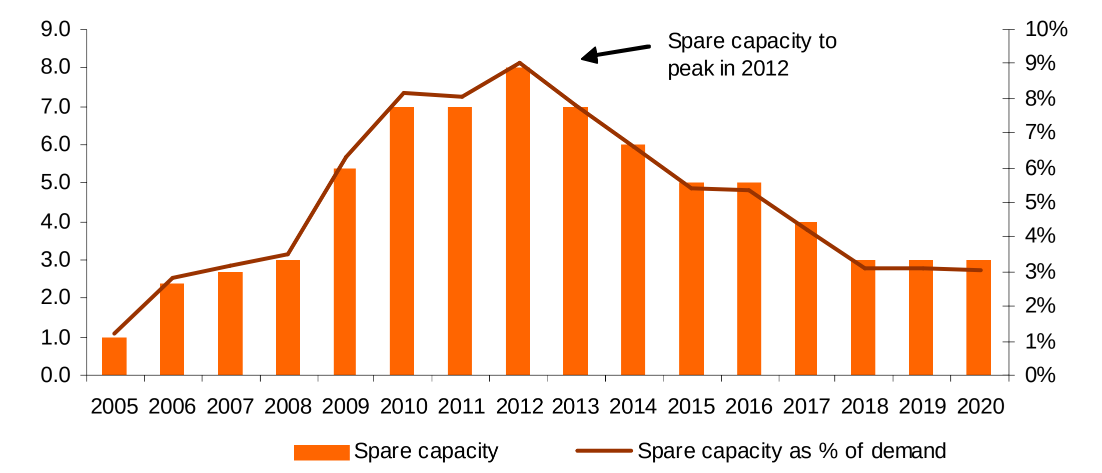
Spare capacity to peak in 2012 at 8MMbbl/d, or 9% of demand.

In the beginning of 2008, the average global spare capacity stood at around 2.7MMbbl/d. But as the demand has slid sharply, the spare capacity would rise to 5.4MMbbl/d, or 6% of the global demand in 2009 — levels not seen since 2002 or the beginning of the surge in oil prices. This increase in spare capacity, for the time being, has removed the geopolitical risk premium that contributed to rising prices until July 2008. The significance of the spare capacity cannot be understated, as it is a fear gauge of whether excess supply is available should a disruption to normal production materialise.

CERA also expects that productive capacity in 2010 will be more than 4MMbbl/d higher than in 2008. This figure of 4MMbbl/d is a net increase over and above the replacement of production declines at an average aggregate rate of 4.5% per year from existing fields. During this period, oil demand is projected to be broadly flat, with some growth in 2010 offsetting declines in 2008-09. Therefore, shut-in and spare capacity could increase to 7MMbbl/d, on an average, for 2010, and would continue to rise till 2012. The spare capacity would increase to 8MMbbl/d in 2012 and decline only post-2013.

In the last 3 months, OPEC has also announced bigger production cuts of 4.4MMbbl/d. Possibly, fiscal responsibilities of governments globally may not allow a cut in production to boost prices. We expect the adherence to quotas to fall as prices decline further, which would keep supplying markets with sufficient volumes.

Spare capacity to rise till CY2012 to 8MMbbl/d



Source: CERA, EIA, Antique

No real impact on supply

Supplies in medium term not vulnerable to lower oil prices

The current fall and volatility in oil prices have a differential impact on various components of supply.

Currently producing fields

Supply from currently producing or projects under development, not at risk.

We believe that the investment in producing-fields will continue as long as the price covers their cash costs. Some high-cost, low-producing 'stripper' wells and expensive projects for enhanced oil recovery are especially vulnerable. But volumes that are immediately at risk are less than 500Mbbl/d.

Fields under development to proceed

We believe that most fields underway will also proceed with their activities because of the impact of sunk cost economics. The momentum of fields already under development will continue to add to supply in the short-to-medium term.

Projects not yet started

We believe that categories that are at maximum risk are development projects, which have not yet started, discoveries not yet approved for development and spending on exploration. Other non-traditional components of future supply such as new biofuel, coal-to-liquids and gas-to-liquids projects will also be affected. As these are the project categories that bear the brunt of any delays, their impact on total supply builds up over time would only be evident post-2013.

Runaway upstream costs – Not the case now

Upstream cost is expected to fall by c30% over next two years.

From 2005 to the summer of 2008, there was a dramatic rise in the cost to find, develop, and produce oil and gas. The IHS/CERA Upstream Capital Costs Index has increased by 130% since 2000.

Rising oil prices from 2003 onward gave oil companies the wherewithal to raise their capital budgets, and the market's focus on possible tightness in supply gave them encouragement to take on more projects.

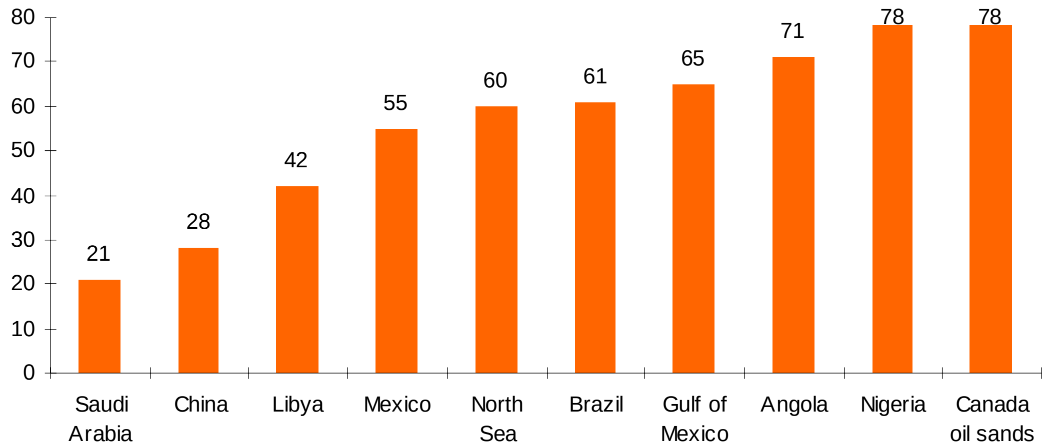
In addition to tight markets for upstream services and equipment, and a shortage of skilled personnel and labour, the industry's cost base was inflated by some of the same factors that drove the broader economic boom. There were big hikes in raw material prices like steel, besides a rise in bulk shipping, driven partly by higher fuel prices and partly by capacity constraints.

Currently, strong downward pressure is seen on many of these cost components. New tenders are beginning to reflect reductions, while oil companies are revisiting existing contracts, which do not reflect the current market environment. With a sharp fall in key input costs, we estimate that capital costs for upstream projects would drop by 20-30% over the next 2 years. CERA also estimates that upstream costs could be down by 40% in the next 2 years.

The marginal cost argument, no buyers now…

We believe that the expected drop in upstream costs, in terms of labour services, commodity prices and equipment rentals, would also reduce the cost of production. As per estimates, at current cost levels with fiscal terms, the cost of production varies from USD21/bbl in Saudi Arabia to USD78/bbl in Canada's oil sands.

Minimum WTI oil price to justify investment in new projects (USD/bbl) (based on a 15% IRR at current cost levels in fiscal terms)

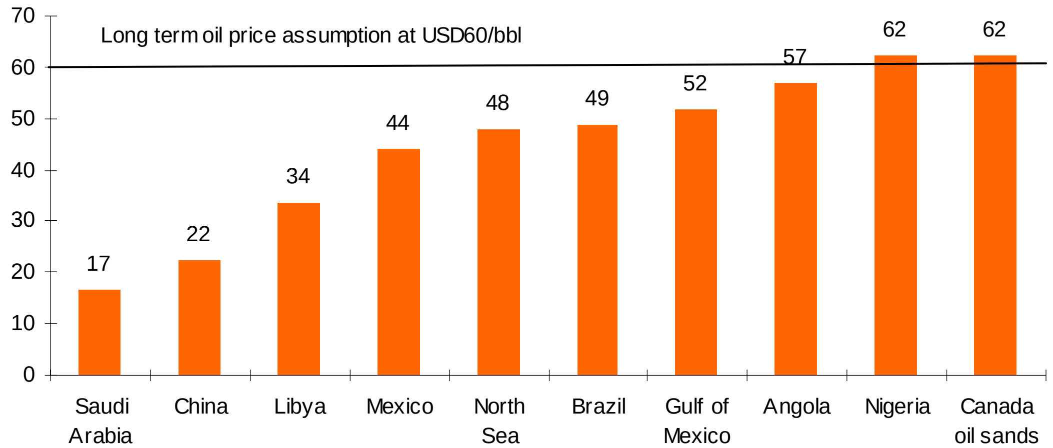


Source: CERA, Antique

Marginal cost of production at cUSD62/bbl, after assuming 20% fall.

If we reduce current cost levels by 20%, the highest cost estimate for Canada's oil sand comes down to USD62/bbl at 15% IRR. If we estimate that upstream costs would decline more than 20% over the next 2 years, this would even make Canada's oil sands feasible under our long-term price estimate of USD60/bbl. Hence, it allays concerns on under-investment due to lower oil prices as costs also fell.

Minimum WTI oil price to justify investment in new projects (USD/bbl) (based on a 15% IRR after taking a 20% cut in current cost levels in fiscal terms)



Source: CERA, Antique

What would happen to existing contracts at higher prices?

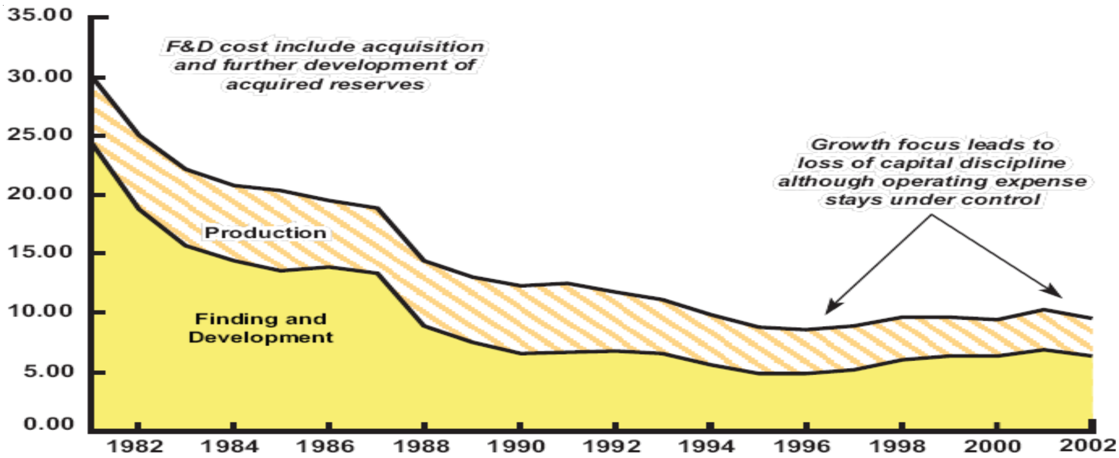
Existing contracts at higher prices would also be revisited.

In cases where the expected oil price is too low to justify the prevailing cost level, we expect that projects would be postponed or even cancelled. In a slackening equipment market, part of the price fall may be absorbed, as in the past, by suppliers in the form of lower rates. While if suppliers' alternative is to see people and equipment idled, they may prefer to cover just their cash costs and absorb the loss on their own recent investments while waiting for the cycle to turn, which seems unlikely.

Industry cost base to fall adjusting for prevailing oil price, similar to 1992-2002.

These are not just theoretical possibilities. As per a CERA study, in 1981, the oil price dropped from its highs, following the second oil shock in 1979. Just as in 2008, the industry's cost base was left uncomfortably high in relation to the newly prevailing oil price. By 1996, these costs had been reduced to about a third of their 1981 levels.

Non-OPEC upstream costs from 1992-2002



Source: CERA

Oil majors conservative on oil prices to evaluate projects

Oil majors still use USD55-60/bbl as justification for investments.

Our analysis of Western oil majors suggests that the oil price used by companies to evaluate their investment is still below USD60/bbl, despite substantially high oil prices seen in 2007 and 2008. The 2008 average for six oil majors is close to USD52/bbl, which in most cases had been raised in 2008 after seeing an average USD72/bbl of oil price in 2007. This, we believe, helps in supporting our view that lower oil prices below USD60/bbl may not impact investments in the oil sector by oil majors, though we believe that the recent crash in oil prices will bring more capital discipline.

Table of oil price assumptions by global oil majors

Oil price assumptions by global oil majors (USD/bbl)	2008	2009	2012
ENI	64	57	50
Repsol	55	60	60
Total	40	60	60
BP	60	60	60
BG	55	55	55
StatoilHydro	35	50	50
Average	**52**	**57**	**56**

Source: Companies

Easing fiscal terms to help supply growth

Fiscal terms are also expected to ease.

During rising oil prices, we saw the phenomenon of resource-holding by governments for securing a larger share of economic rents through tax hikes and changes to terms on which resources could be accessed. In many major oil-producing nations (countries holding more than 200bn bbls of reserves), the state-takes now averages 85%, having risen over recent years by more than 15%. Some host governments have set tougher terms only for new activities, while others have also increased their take from existing contracts.

However, with lower oil prices and rising risk to investments, we expect that government policies would also change, consolidating the weaker demand trajectory. Critical imbalances among price, costs and taxes may call for emergency responses.

There has already been one such response: in November, Russia announced a 32% cut in oil export duties. We believe that easing fiscal terms may also bring down the cost of investments, besides making projects more attractive in IRR terms. Going forward, this would be helpful in easing supply constraints.

Other factors not supporting now

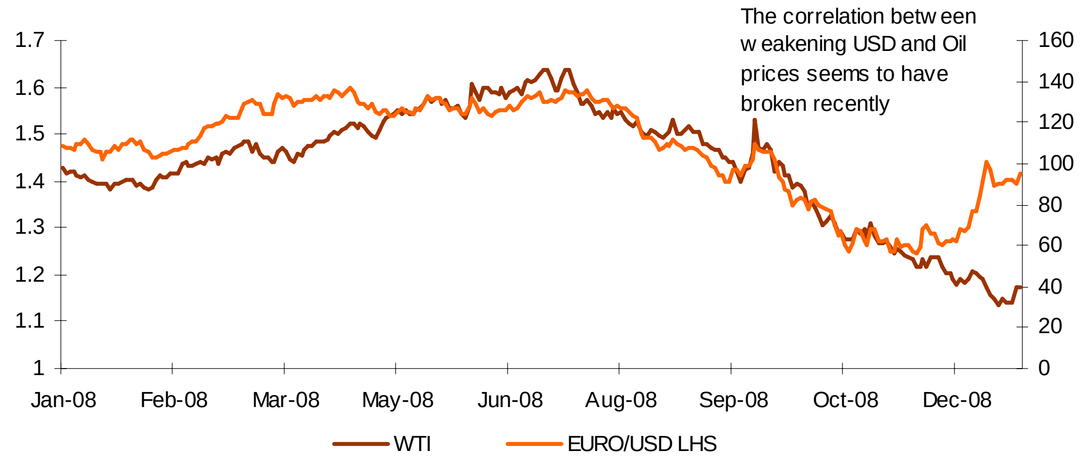
The 'USD' factor

The 'USD' factor not supporting now.

The tight balance between supply and demand during 2002–08 was not the only factor that drove higher oil prices; oil prices were also caught up in an increasingly unsustainable commodity boom. The final explosion in oil and other commodity prices began in late summer 2007, as a weakening dollar set off a 'flight to commodities', besides creating an increasing emphasis on oil and other commodities as an asset class and storehouse of value.

However, they are no more contributing factors now, as de-leveraging across the globe has reduced the availability of money for chasing commodities. Despite the recent sharp fall in USD once again, oil prices have not inched up.

Depreciating USD against Euro has helped oil in 2008, but not now…



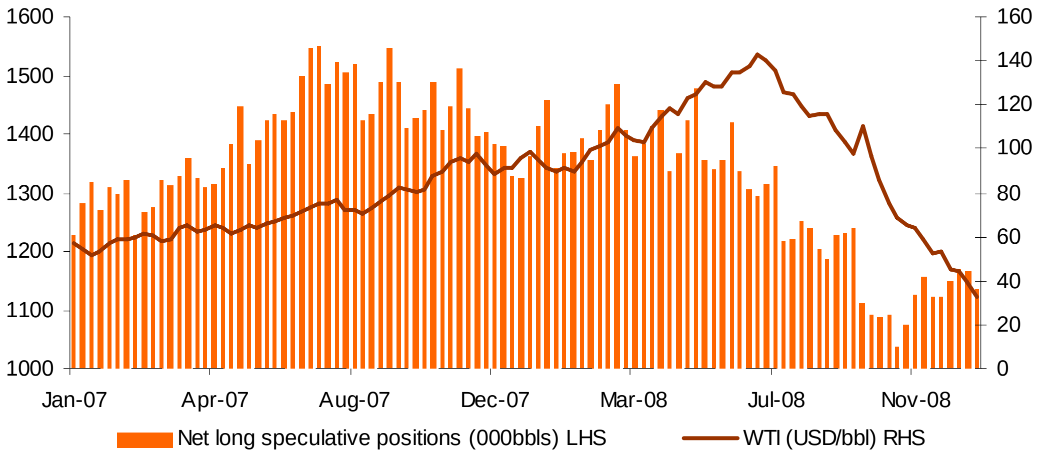
Source: Bloomberg, Antique

Speculative interest following oil has also taken a back-seat

Speculative interest in oil futures also fell due to global de-leveraging.

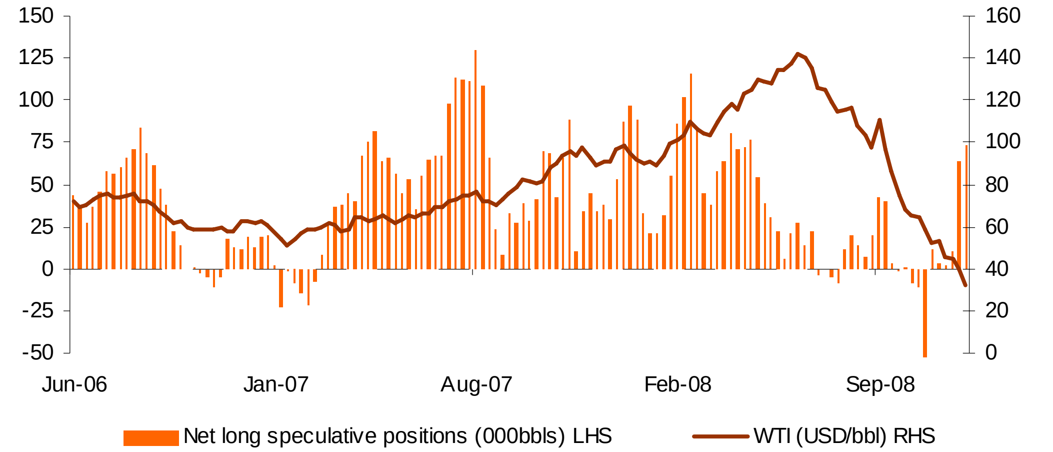
In early 2008, as the US economy showed growing signs of weakness and prospects deteriorated for its housing, credit and financial markets, 'non-commercial investors' moved even more vigorously into oil and other commodities as a new asset class. However, as economic conditions worsened and financial liquidation began, investors fled from oil futures under redemption pressure to fund other obligations. Open interest in Nymex oil futures, which was 1.5MMbbls at peak in March 2008, fell to 1MMbbls by October 2008.

Falling open interest in oil futures at Nymex vs oil prices



Source: Bloomberg, Antique

Net long speculative positions vs rise in oil prices



Source: Bloomberg, Antique

Risks to our call

Key macro risks to our oil price assumption are as below:

- Strong global economic growth may increase the oil demand growth for 2009 and 2010, which may lead to higher oil prices.
- Significant delay in oil projects estimated by us may affect our spare capacity estimates and bring tightness to oil markets.
- A more-than-expected slowdown in future exploration and development activities may affect our estimates of future oil supply.
- Overestimation of supply additions and how fast the new capacity will come on-stream may affect our bearish view on oil prices.
- Any adverse regulatory change with respect to direct or indirect taxation on oil may affect our future supply estimates.
- Unexpected non-commercial activity in oil futures by financial investors may lead to price distortion on the higher side.
- During 2008, as USD weakened, financial investors moved into oil futures driving its prices higher. Any such development in future may affect our oil price assumptions.
- Geopolitical tension in oil-producing countries may bring back the premium for geopolitical risk to drive oil prices higher.

Cairn India Ltd. (CIL)

No more riding the 'crude' wave

SELL **CMP: INR179** **Target Price: INR144**

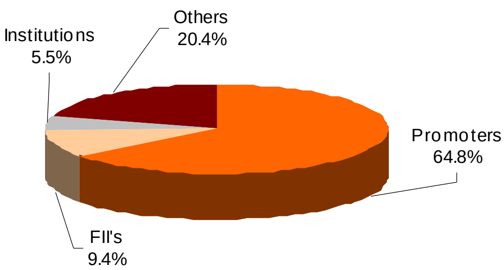
January 7, 2009 Strictly confidential

Market Data		
Sector	:	Oil & Gas
Market Cap (INRbn)	:	345
Market Cap (USDbn)	:	7.1
O/S shares (m)	:	1,897
Free Float (m)	:	430
52-wk HI/LO (INR)	:	343/88
Avg Daily Vol ('000)	:	5,628
Face Value (INR)	:	10
Bloomberg	:	CAIR IN
Reuters	:	CAIL.BO

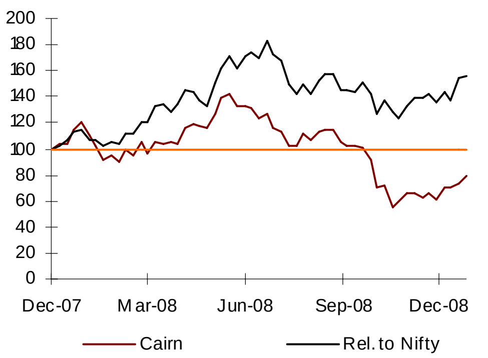
Price Performance

	1m	3m	6m	12m
Absolute	21	1	(28)	(30)
Relative	16	17	(1)	20

Shareholding Pattern



Price Performance Vs NIFTY



We initiate coverage on CIL, with a SELL rating and a target price of INR144/share.

Lower oil price to impact CIL value

CIL's value is highly levered to crude oil prices. We believe that oil prices are expected to remain lower for a longer period of time. Our oil price assumptions are 30% lower than the average consensus price assumption for CY2009-12. We have assumed a long-term oil price of USD60/bbl for our earnings forecast for CY2011, and increased it by USD1.5/bbl every year thereafter. At our long-term oil price assumption of USD60/bbl, CIL DCF estimates suggests a fair value of INR144/share.

Concerns over discount on quality of Rajasthan crude

Rajasthan crude, with an API gravity of 26-28^{0}, as against Brent's API gravity of 38^{0}, is of waxy and heavy nature with a product yield lower as compared with Brent. This implies that Rajasthan crude would be sold at a discount to the benchmark Brent. For Rajasthan crude, we estimate a 14% discount to Brent. We believe that PSU refiners may also ask for a convenience discount along with the discount due to quality of crude.

Producing properties in declining mode

CIL's currently producing fields, Ravva and Cambay, are in decline mode. Consortium partners have proposed drilling of additional wells, besides planning a capital expenditure (USD100m net to Cairn) for improving the production profile. However, despite these measures, we believe that production from these fields would decline from CY2010.

Valuations

We initiate coverage on CIL with a 12-month target price of INR144/share based on our DCF estimate.

Key financials

Year ended December	2007a	2008e	2009e	2010e
Net Revenue (INRm)	10,123	13,139	18,864	75,992
EBITDA (INRm)	2,039	8,118	11,997	59,803
EBITDA growth (%)	na	298%	48%	398%
PAT (INRm)	(247)	3,699	5,035	44,304
PAT growth (%)	na	na	36%	780%
EPS (INR/share)	(0.1)	2.0	2.7	23.2
EPS growth (%)	na	na	36%	777%
PE (x)	na	93.2	68.6	7.8
PB (x)	1.1	1.1	1.0	0.9
EV/EBITDA (x)	164.1	44.6	31.0	5.6
RoE (%)	0%	1%	2%	12%

Source: Antique

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Valuing MBA fields (Block: RJ-ON-90/1)

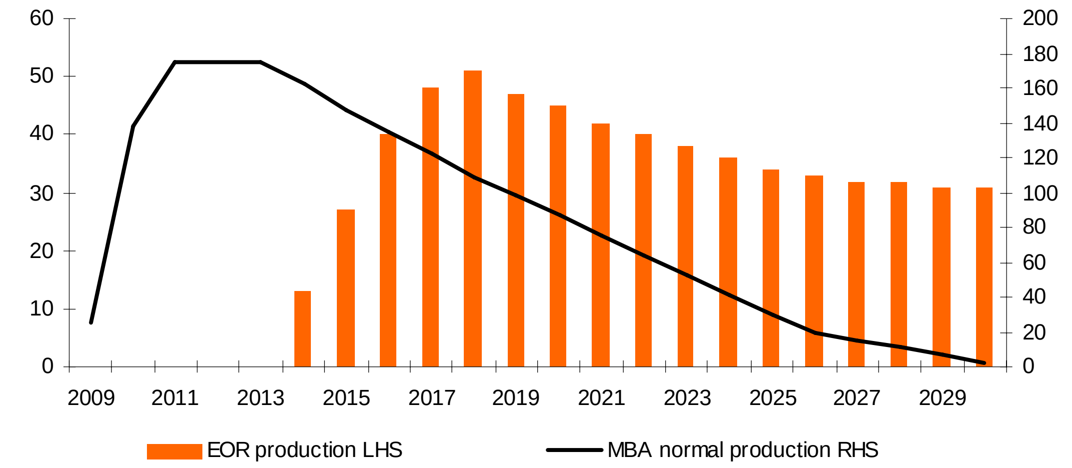
- CIL share 70%, ONGC share 30%.
- Total oil production: 677MMbbls without EOR, first oil from 2HCY09.
- Total EOR oil production: 270MMbbls, starting from CY2014.
- Gross development capital expenditure: USD3.0bn.
- Cost of production: USD4.5/bbl, including the pipeline operating cost.
- EOR cost of production: USD10/bbl.
- Discount to Brent: 14%.
- Cess: INR927/mt.
- Cost of Equity: 12%; Debt: Equity ratio: 10:.90.
- Royalty: 12.5% on oil revenue borne by ONGC.
- Income tax: IT rate of 34%; tax holiday for the first 7 years. We have assumed MAT of 10.3%.

The government's profit share

Investment multiple	GOI share
0.0-1.5	20%
1.5-2.0	30%
2.0-2.5	40%
>2.5	50%

Source: Company

Production profile of Rajasthan block (Mbbl/d)



Source: Bloomberg, Antique

Table of reserves (MMboe)

	Gross STOIIP		2P Gross Reserves/Resources		2P Net Reserves/Resources	
	Cairn	D&M	Cairn	D&M	Cairn	D&M
Rajasthan MBA fields	2,054	2,118	685	701	479	491
Rajasthan MBA EOR			308	308	216	216
RJ small fields-Saraswati & Raageshwari oil	300	144	12	39	9	27
RJ other fields	1,397	1,216	72	54	51	38
Total	**3,751**	**3,478**	**1,077**	**1,102**	**755**	**772**

2P Reserves and resources – Gross and Cairn net 2007 year end – Cairn India Le and DeGolyer & MacNaughton

2P Reserves include estimates of expected production during the current PSC term (May 14, 2020 for Rajasthan)

2C Resources are those volumes expected to be produced outside the current PSC term (end of field life), or where development planning or approval is pending.

Source: Company

Against gross 2P reserves of 993MMbbls accruing to MBA fields, including EOR, our production assumption pegs the gross recovery at 946MMbbls, implying a recovery factor of 95% for 2P reserves.

Nil valuation to exploration upsides

Assets where exploration is under progress: These are high-risk assets, as exploration is under progress, and discoveries are either not made or they are under appraisal. The valuation of these assets depend on the probabilistic estimation of success, history of previous exploration successes in the block, experience and technical expertise of the operator, and the risk appetite of investors. In our valuations, we ascribe nil value to these assets.

Uncertainties ahead

Crude discount to remain a bigger issue

We expect a bigger discount of 14% to Cairn Rajasthan crude.

Rajasthan crude, with an API gravity of 26-28^{o}, as against Brent's API gravity of 38^{o}, is of waxy and heavy nature with a product yield lower as compared with Brent. As a result, we reckon that the pricing of the crude would be at a substantial discount to the Brent.

We estimate that Rajasthan crude to have a higher discount of 14% to Brent, as India oil marketing companies are sceptical about the quality of the crude and their ability to process for maximising yields.

Risk of windfall tax – Unlikely in lower oil price scenario

The government was considering the imposition of a special oil tax on the domestic crude oil production under the pre-NELP blocks. The proposed tax was supposed to be implemented after the price of domestically produced crude oil crossed the USD75/bbl-mark. Under the proposal, public sector oil producers such as ONGC and Oil India would have to fork out to the government 100% of additional realisations beyond the cut-off price, while private companies would be required to pay 40% of their windfall gains. With the recent sharp fall in oil prices, we do not expect this levy to come up, which is slightly positive for Cairn since Rajasthan block is a pre-NELP block.

Levy of cess on Rajasthan block

CIL's liability to pay the cess on production from Rajasthan block has been under dispute with the Government of India due to ambiguities in the production sharing contract (PSC). If CIL is asked to bear the liability, it can range between nil and INR2,575/mt. In our base case valuations, we have assumed that CIL would be liable for a cess of INR927/mt. However, if CIL is mandated to pay the cess at the rate of INR2,575/mt, then it will reduce our DCF estimate by INR14/share.

Sensitivities of CIL valuation with respect to various assumptions

DCF sensitivity to WACC and exchange rates

		Exchange rates						
		39	40	41	42	43	44	45
WACC	9.5%	162	162	163	164	164	165	166
	10.0%	156	157	158	158	159	160	160
	10.5%	151	152	153	153	154	155	155
	11.0%	147	147	148	149	149	150	150
	11.5%	142	143	143	144	145	145	146
	12.0%	138	138	139	140	140	141	142

Source: Antique

DCF sensitivity to oil prices and exchange rates

		Oil prices						
		50	53	56	59	62	65	68
Exchange rates	40	128	135	143	151	160	166	172
	41	129	136	143	152	160	167	173
	42	129	137	144	153	161	168	174
	43	130	137	145	153	162	168	175
	44	130	138	145	154	163	169	175
	45	131	138	146	155	163	170	176

Source: Antique

Valuations

We initiate coverage on CIL with a SELL rating, and a 12-month target price of INR144/share based on our DCF estimate.

Valuation table

Particulars	WACC	INRm
DCF	11.5%	290,316
Net Debt		(17,045)
Total Value		**273,271**
No. of shares (m)		1,899
Value per share		**144**

Source: Antique

Key risks to our estimates

- Rise in oil prices higher than our estimates would increase DCF valuations as shown in the sensitivities above.
- Nil liability of cess on CIL would increase the value of our DCF-based target price by INR14/share.
- Discount on Rajasthan crude lower than our estimates would increase our DCF value.
- Ramp up of production from Rajasthan block faster than our expectations would affect our DCF estimates.

Financials (INR m)

Profit and Loss Account

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
Revenues	10,123	13,139	18,864	75,992	96,250
Expenses	(8,083)	(5,021)	(6,866)	(16,189)	(18,887)
EBITDA	2,039	8,118	11,997	59,803	77,363
Depreciation & amortisation	(2,077)	(2,751)	(3,754)	(8,152)	(8,978)
EBIT	(38)	5,366	8,244	51,651	68,384
Interest expense	(27)	(1,951)	(1,891)	(2,645)	(1,424)
Other income	1,324	3,350	469	1,719	3,859
Profit before tax	1,259	6,765	6,822	50,726	70,819
Tax	(1,505)	(1,116)	(1,786)	(6,422)	(8,121)
Profit after tax	(245)	5,649	5,035	44,304	62,698
Adjusted profit after tax	(247)	3,699	5,035	44,304	62,698
Recurring EPS (INR)	(0.1)	2.0	2.7	23.2	32.7

Balance Sheet

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
Share Capital	17,784	18,944	18,990	19,058	19,160
Reserves & Surplus	276,574	306,409	311,399	346,105	397,205
Networth	294,358	325,353	330,388	365,163	416,366
Debt	3,124	28,039	37,992	37,950	20,512
Capital Employed	297,482	353,392	368,380	403,113	436,877
Gross Fixed Assets	254,285	258,675	258,675	258,675	258,675
Accumulated Depreciation	(606)	(779)	(953)	(1,128)	(1,306)
Net Assets	253,679	257,896	257,722	257,546	257,369
Expl.Develop and site restoration costs	29,060	83,139	103,778	96,810	88,152
Investments	7,129	3,617	456	492	530
Current Assets Loans & Advances					
Inventory	1,216	1,578	2,266	9,129	11,562
Debtors	1,349	1,723	2,443	9,627	12,175
Cash & Bank	13,318	10,994	10,969	45,121	84,574
Loans & advances and others	4,650	6,808	5,457	6,403	6,868
Current Liabilities & Provisions					
Creditors	4,692	3,570	4,906	11,349	13,004
Other liabilities & provisions	3,680	3,577	4,077	4,577	5,077
Net Current Assets	12,161	13,956	12,152	54,353	97,097
Deferred tax assets/(liabilities)	(4,917)	(5,451)	(5,826)	(6,088)	(6,272)
Misc expenses	370	234	98	0	0
Application of Funds	297,482	353,392	368,380	403,113	436,877

Per share data

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
No. of shares (Mn)	1,778	1,894	1,899	1,906	1,916
BVPS (INR)	166	172	174	192	217
CEPS (INR)	1	3	5	28	37
DPS (INR)	0	0	0	5	6

Margins (%)

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
EBITDA	20%	62%	64%	79%	80%
EBIT	0%	41%	44%	68%	71%
PAT	-2%	43%	27%	58%	65%

Cash Flow

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
PBT	1,259	6,765	6,822	50,726	70,819
Depreciation	2,077	2,751	3,754	8,152	8,978
Interest	(701)	(1,399)	1,422	925	(2,435)
Changes in working capital	(908)	(4,119)	1,779	(8,049)	(3,292)
Others	4,596	136	136	98	0
Tax paid	(820)	(581)	(1,412)	(6,160)	(7,937)
CF from operating activities	5,504	3,553	12,501	45,692	66,134
Capex	(32,939)	(56,659)	(24,218)	(1,008)	(144)
Investments	(7,024)	3,512	3,161	(35)	(39)
Others	(25,609)	(4,389)	0	0	0
Income from investments	1,269	1,399	469	1,719	3,859
CF	(64,304)	(56,138)	(20,588)	676	3,677
Changes in share capital	2,094	25,346	0	(0)	0
Changes in Debt	(1,692)	24,914	9,953	(42)	(17,438)
Dividends & Interest paid	(1,447)	0	(1,891)	(12,174)	(12,920)
CF from financing activities	(1,045)	50,260	8,062	(12,216)	(30,358)
Net cash flow	(59,844)	(2,324)	(25)	34,153	39,452
Add: Opening balance	73,162	13,318	10,994	10,969	45,121
Closing balance	13,318	10,994	10,969	45,121	84,574

Key assumptions

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
WTI (USD/bbl)	72	97	50	56	60
INR/USD	44	43	42	41	40
MBA gross production (Mbbl/d)	nil	nil	25	139	175
Other fields net WI production (Mboe/d)	19	18	18	17	13
MBA cost of production (USD/bbl)	na	na	4.5	4.5	4.5
Other fields cost of production (USD/bbl)	6.9	6.6	6.8	7.0	7.1

Growth Indicators (%)

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
Revenue	na	30%	44%	303%	27%
EBITDA	na	298%	48%	398%	29%
PAT	na	na	36%	780%	42%
EPS	na	na	36%	777%	41%

Valuation

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
PE (x)	na	93.2	68.6	7.8	5.6
P/BV (x)	1.1	1.1	1.0	0.9	0.8
EV/EBITDA (x)	164.1	44.6	31.0	5.6	3.6
EV/Sales (x)	33.1	27.5	19.7	4.4	2.9
Dividend Yield (%)	0.0%	0.0%	0.0%	2.7%	3.3%

Financial ratios

Year ended 31st Dec	2007a	2008e	2009e	2010e	2011e
RoE	0%	1%	2%	12%	15%
RoCE	0%	2%	2%	13%	16%
Debt/Equity (x)	0.0	0.1	0.1	0.1	0.0
EBIT/Interest (x)	(1.4)	2.8	4.4	19.5	48.0

Source: Antique

GAIL

Uncertainties in all segments

SELL **CMP: INR211** **Target Price: INR171**

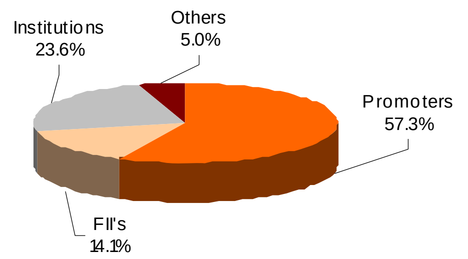
January 7, 2009 Strictly confidential

Market Data		
Sector	:	Oil & Gas
Market Cap (INRbn)	:	272
Market Cap (USDbn)	:	5.6
O/S shares (m)	:	1,268
Free Float (m)	:	449
52-wk HI/LO (INR)	:	357/165
Avg Daily Vol ('000)	:	2,681
Face Value (INR)	:	10
Bloomberg	:	GAIL IN
Reuters	:	GAIL.BO

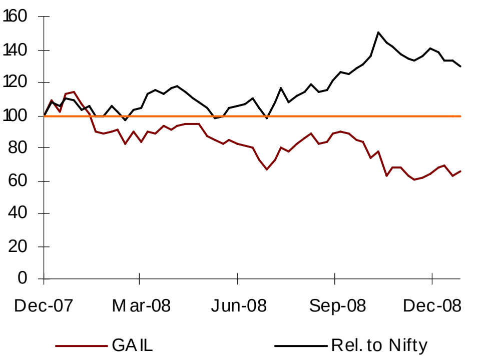
Price Performance

	1m	3m	6m	12m
Absolute	(2)	(23)	(7)	(42)
Relative	(9)	(5)	(29)	11

Shareholding Pattern



Price Performance Vs NIFTY



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We initiate coverage on GAIL, with a SELL rating and a target price of INR171/share.

New tariff regulations – Negative for pipeline division

The Petroleum and Natural Gas Regulatory Board (PNGRB) has notified new regulations for pipeline tariffs. The PNGRB has fixed the regulated return at 12% post-tax ROCE, and the capital employed would be based on net block. This would be highly negative for GAIL, as the lower depreciated value of its pipelines would reduce the capital employed and tariffs thereon. We are assuming a 14% reduction in average tariffs for GAIL in FY10e. Despite our estimation of additional transmission volumes of 17MMcmd for GAIL in FY10e, the FY10e pipeline EBIT is expected to decline by 8% YoY.

Petrochemical earnings dive

We expect petrochemical prices to remain depressed during FY10-11e, as the demand outlook remains weak and gas-based Middle East supply comes in CY2009. We have assumed polyethylene prices at USD820/mt for FY10e, which would reduce FY10e PetChem's EBIT by 74% YoY.

LPG and liquid hydrocarbons – Realisations down

This division has a story similar to petrochemical division, where prices LPG and naphtha prices are expected to remain lower, following the decline in oil prices. Our under-recoveries model indicate that cooking fuels would continue to see under-recoveries during FY10e, and at USD52/bbl of oil prices, estimated losses could be INR203bn. We estimate that GAIL would share under-recoveries of INR4,173m, and post a 39% YoY decline in segmental EBIT.

Valuations

We initiate coverage on GAIL with a 12-month target price of INR171/share based on sum-of-the-parts valuation. We value the core business at INR142/share, applying an 8x multiple on FY10e EPS of INR17.7/share. We value listed investments at INR29/share, and arrive at our target price of INR171/share.

Key financials

Year ended March	2008a	2009e	2010e	2011e
Net Revenue (INRm)	188,705	227,772	219,119	225,892
EBITDA (INRm)	43,140	47,782	39,627	46,151
EBITDA growth (%)	13%	11%	-17%	16%
PAT (INRm)	27,907	30,187	22,496	25,570
PAT growth (%)	10%	8%	-25%	14%
EPS (INR/share)	22.0	23.8	17.7	20.2
EPS growth (%)	10%	8%	-25%	14%
PE (x)	9.7	9.0	12.1	10.6
PB (x)	2.0	1.8	1.6	1.5
EV/EBITDA (x)	6.1	5.2	7.7	7.2
RoE (%)	21%	19%	13%	14%

Source: Antique

Summary of key points of new tariff regulations

12% ROCE on net block to reduce tariffs for GAIL pipeline division.

The PNGRB notified the determination of Natural Gas Pipeline Tariff Regulations, 2008 to come in effect from FY10e onwards. The regulations provide a reasonable rate of return as 12% post-tax ROCE for a natural gas pipeline.

The key aspects of the regulations regarding determination of the network tariff for natural gas pipelines are as follows:

1. **Tariff computation**: The tariff to be charged for a period shall be calculated based on the discounted cash flow methodology on an IRR basis. Cash flows will be discounted using the project's reasonable rate of return. The tariff will remain constant over the economic life of the pipeline, but will be subject to review for each tariff period.

2. **Reasonable rate of return**: The reasonable rate of return has been fixed at 12% post-tax ROCE. The pre-tax rate of return shall be computed by grossing up 12% by the nominal applicable rate of income tax. This works out to 18.2% based on existing corporate tax rate of 33.99%. The authorised entity is free to leverage the financing of the project in any suitable manner.

3. **Return on capital employed** (ROCE): The total capital employed shall be equal to gross fixed assets in the project *less* accumulated depreciation (as per rates allowed under Schedule VI of the Companies Act, 1956), plus the normative working capital (equal to 30 days of the operating cost, excluding depreciation and 18 days of natural gas pipeline tariff receivables).

4. **Gross fixed assets**: Gross fixed assets shall be the lower of the actual historical cost of acquisition (including the cost of any subsequent replacement or improvement or modification), or that normatively assessed by the board.

5. **Operating costs**: Actual operating costs or as assessed by the PNGRB, whichever is lower, will be allowed for recovery.

6. **Volumes for computation of unit network tariff**: The regulations lay down the capacity utilisation norms to be considered for computing the unit tariff over the economic life of the project.

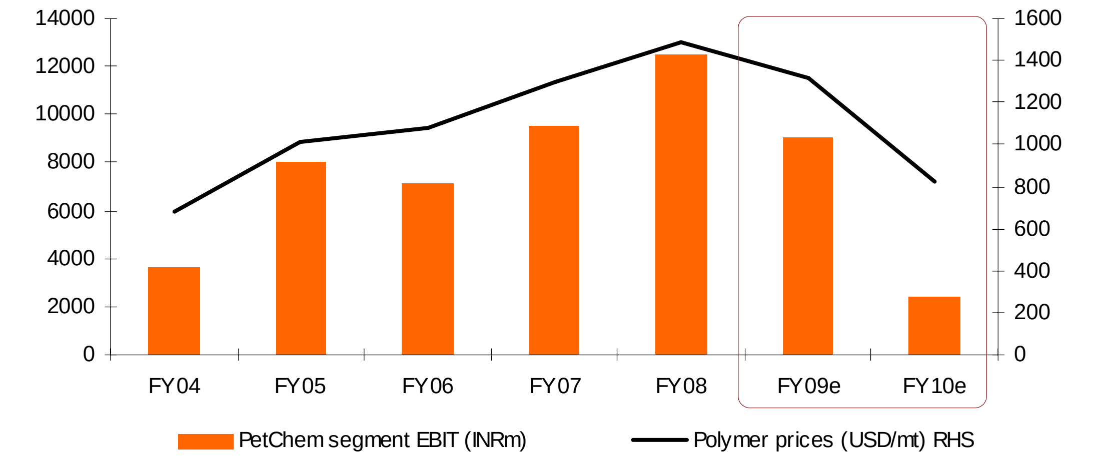
Since it is difficult to ascertain full data on the historical cost and the current net gross block (gross block *less* accumulated depreciation) of each of GAIL's pipelines in new regulations, we are assuming a 14% reduction in average tariffs for GAIL in FY10e to INR726/Mcm. Despite our estimation of additional transmission volumes of 17MMcmd for GAIL in FY10e, the FY10e pipeline EBIT is expected to decline by 8% YoY.

Petrochemicals earnings down under the downcycle

PetChem earning's under pressure due to depressed prices.

GAIL petrochemical earnings would take a significant hit as polymer prices have crashed in 3QFY09. We expect polymer prices to remain depressed during FY10-11e, as the demand outlook remains weak and new gas-based Middle East supply is expected to come on-stream by CY2009. We have assumed polyethylene prices at USD820/mt for FY10e and estimate a 74% YoY decline in PetChem's EBIT.

GAIL Petchem EBIT and Polymer prices



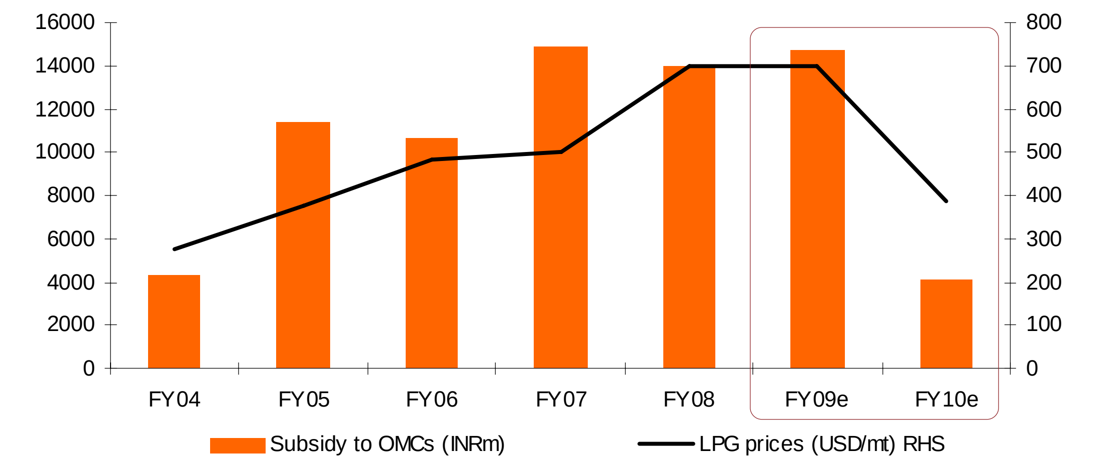
Source: Company, Bloomberg and Antique

LPG and liquid hydrocarbon business – Subsidies to continue

Subsidies to OMCs would affect earnings for LPG and liquid hydrocarbon segment.

Earnings from this segment are mainly dependent on LPG prices and subsidy to OMCs. We believe that in line with our lower oil price assumption, LPG prices would remain lower, affecting realisations and margins. Despite lower LPG prices, under-recoveries on cooking fuels would continue in FY10e. We estimate FY10e total cooking fuel under-recoveries at INR203bn based on our oil price estimate of USD52/bbl for FY10e. We estimate GAIL's share of subsidy to oil marketing companies at INR4,173m, and expect the company to post a 39% YoY decline in segmental EBIT.

GAIL LPG and liquid hydrocarbons EBIT and subsidy to OMCs



Source: Company, Bloomberg and Antique

GAIL segmental EBIT

INRm	FY08	FY09	FY10	FY11
Natural gas transmission	15,535	16,352	15,019	16,687
LPG transmission	2,318	2,127	2,398	2,622
Natural Gas Trading	2,044	4,163	4,228	4,232
Petrochemicals	12,542	9,038	2,393	3,994
LPG and Liquid Hydrocarbons	9,004	11,370	6,949	8,861
Gailtel	31	(21)	16	16
Profit/Loss Before Interest and Tax	41,475	43,028	31,003	36,413

Source: Company, Antique

Capex to add value post-FY11e

GAIL's capex of INR170bn would add significant value post-FY11e only. Two major projects Vijaipur-Dadri Pipeline and Dahej-Vijaipur Pipeline Phase-II, which are expected to add significant volumes, have a target completion date of October 2010. Due to the slow progress on projects, we expect a delay of 6-8 months in their completion, which would defer any benefits from these pipelines to FY12e.

GAIL's pipeline projects

Major projects	Total cost of project (INRbn)	Expected date of completion from GAIL
Vijaipur-Dadri pipeline	51	Oct-10
Bawana-Nangal pipeline	18	Oct-09
Dahej-Vijaipur pipeline Phase-II	44	Oct-10
Chainsa-Jhajjar pipeline	10	Oct-09
Jhajjar-Hissar pipeline	3	Oct-10
Kailarao and Chainsa compressor	11	Oct-11

Source: Company, Antique

Schedule of investments

Investment	Shares (m)	Price	INRm
ONGC	51	594	30,507
Indraprastha Gas	32	83	2,621
Petronet LNG	94	32	3,000
Guj. Inds. Power	1	42	24
Total			**36,152**
No. of shares (m)			1,268
Value of investments/share			**29**

Note: ONGC-Antique's target price, Other investments at 20% discount to current market price

Source: Company, Antique

Valuations

We initiate coverage on GAIL with a 12-month target price of INR171/share based on the sum-of-the-parts valuation. We value the core business at INR142/share, applying an 8x multiple on FY10e EPS of INR17.7/share. We value investments in ONGC at our target price of INR594/share, and other listed investments at a 20% discount to the current market value. The value of listed investments to GAIL is INR29/share.

Table of sum-of-the-parts valuation

Particulars	Earnings	Multiple	Value per share
Core business	17.7	8	142
Value of investments/share			29
Value per share			**171**

Source: Antique

Key risks to our estimates

- Polymer prices higher than our estimates may affect our Petchem division earnings estimates.
- Lower subsidy sharing than our estimates may affect our earnings estimates for LPG and Liquid Hydrocarbons division.
- Lower reduction in transmission pipeline tariffs or higher transmission volumes may affect our earnings estimate for Natural Gas division.
- Deregulation of transportation fuels and relieving upstream companies from sharing under recoveries on cooking fuels, have potential to re rate the earnings and multiples for GAIL.

Financials (INR m)

Profit and Loss Account

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Revenues	166,062	188,705	227,772	219,119	225,892
Expenses	(133,840)	(145,565)	(179,990)	(179,491)	(179,741)
EBITDA	32,222	43,140	47,782	39,627	46,151
Depreciation & amortisation	(6,216)	(6,627)	(6,688)	(8,625)	(9,738)
EBIT	26,006	36,513	41,093	31,003	36,413
Interest expense	(1,217)	(1,493)	(1,509)	(2,593)	(2,871)
Other income	6,099	6,221	5,894	5,874	5,226
Profit before tax	30,889	41,241	45,479	34,283	38,768
Tax	(5,435)	(13,412)	(15,293)	(11,787)	(13,198)
Profit after tax	25,453	27,829	30,187	22,496	25,570
Adjusted profit after tax	25,436	27,907	30,187	22,496	25,570
Recurring EPS (INR)	20.1	22.0	23.8	17.7	20.2

Balance Sheet

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Share Capital	12,685	12,685	12,685	12,685	12,685
Reserves & Surplus	105,545	122,841	142,338	156,282	171,163
Networth	118,230	135,526	155,023	168,967	183,847
Debt	36,639	37,867	38,222	78,143	88,205
Capital Employed	154,869	173,393	193,244	247,110	272,052
Gross Fixed Assets	156,971	193,642	215,619	243,456	246,066
Accumulated Depreciation	(76,504)	(82,885)	(89,573)	(98,198)	(107,936)
Net Assets	80,467	110,758	126,046	145,259	138,130
Capital work in progress	46,837	22,859	25,882	78,045	125,435
Investments	9,664	10,225	10,225	10,225	10,225
Current Assets Loans & Advances					
Inventory	6,248	6,302	7,607	7,318	7,544
Debtors	8,275	11,552	13,944	13,414	13,829
Cash & Bank	27,383	46,321	59,384	43,161	27,814
Loans & advances and others	38,379	43,938	43,938	43,938	43,938
Current Liabilities & Provisions					
Creditors	27,926	35,515	43,819	43,985	44,125
Other liabilities & provisions	20,667	28,461	35,192	35,095	35,143
Net Current Assets	31,691	44,137	45,861	28,751	13,856
Deferred tax assets/(liabilities)	(13,791)	(13,848)	(14,032)	(14,432)	(14,857)
Minority interest	0	(738)	(738)	(738)	(738)
Application of Funds	154,869	173,393	193,244	247,110	272,052

Per share data

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
No. of shares (Mn)	1,268	1,268	1,268	1,268	1,268
BVPS (INR)	93	107	122	133	145
CEPS (INR)	25	27	29	25	28
DPS (INR)	10	10	8	6	8

Margins (%)

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
EBITDA	19%	23%	21%	18%	20%
EBIT	16%	19%	18%	14%	16%
PAT	15%	15%	13%	10%	11%

Source: Antique

Cash Flow

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
PBT	30,889	41,241	45,479	34,283	38,768
Depreciation	6,214	6,656	6,688	8,625	9,738
Interest	(851)	1,046	(5,048)	(2,900)	(1,100)
Changes in working capital	(9,644)	(52)	11,339	888	(452)
Tax paid	(9,178)	(11,076)	(15,108)	(11,387)	(12,773)
CF from operating activities	17,430	37,815	43,350	29,508	34,180
Capex	(48,226)	(16,062)	(25,000)	(80,000)	(50,000)
Investments	4,496	(437)	-	-	-
Income from investments	3,817	3,576	6,557	5,493	3,971
CF from investing activities	(39,914)	(12,922)	(18,443)	(74,507)	(46,029)
Changes in share capital	-	-	-	-	-
Changes in Debt	15,674	1,442	355	39,921	10,062
Dividends & Interest paid	(11,206)	(7,396)	(12,198)	(11,145)	(13,561)
CF from financing activities	4,468	(5,955)	(11,843)	28,776	(3,499)
Net cash flow	(18,016)	18,938	13,063	(16,222)	(15,347)
Add: Opening balance	45,399	27,383	46,321	59,384	43,161
Closing balance	27,383	46,321	59,384	43,161	27,814

Key assumptions

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
WTI (USD/bbl)	64	82	83	52	57
INR/USD	45	40	45	43	41
Transmission volumes (mmcmd)	79	82	83	100	111
Transmission tariff (INR/mcm)	775	774	841	726	726
Polymer prices (USD/mt)	1,299	1,492	1,317	820	944
LPG prices (USD/mt)	501	659	699	385	463
Subsidy sharing with OMCs (INR m)	14,880	13,047	14,691	4,173	5,057

Growth Indicators (%)

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Revenue	11%	14%	21%	-4%	3%
EBITDA	-13%	34%	11%	-17%	16%
PAT	4%	10%	8%	-25%	14%
EPS	4%	10%	8%	-25%	14%

Valuation

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
PE (x)	10.7	9.7	9.0	12.1	10.6
P/BV (x)	2.3	2.0	1.8	1.6	1.5
EV/EBITDA (x)	8.7	6.1	5.2	7.7	7.2
EV/Sales (x)	1.7	1.4	1.1	1.4	1.5
Dividend Yield (%)	4.7%	4.9%	3.5%	2.8%	3.5%

Financial ratios

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
RoE	22%	21%	19%	13%	14%
RoCE	17%	21%	21%	13%	13%
Debt/Equity (x)	0.3	0.3	0.2	0.5	0.5
EBIT/Interest (x)	21.4	24.5	27.2	12.0	12.7

ONGC

Earnings trapped in oil

SELL **CMP: INR719** **Target Price: INR594**

ANTIQUE

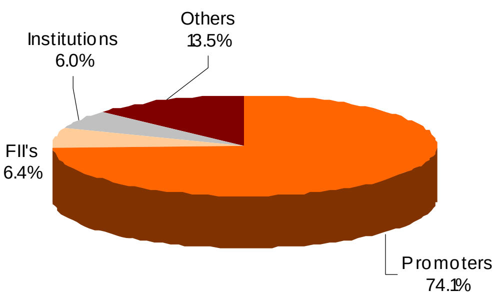
January 7, 2009 Strictly confidential

Market Data		
Sector	:	Oil & Gas
Market Cap (INRbn)	:	1,551
Market Cap (USDbn)	:	31.9
O/S shares (m)	:	2,139
Free Float (m)	:	337
52-wk HI/LO (INR)	:	1,343/538
Avg Daily Vol ('000)	:	2,708
Face Value (INR)	:	10
Bloomberg	:	ONGC IN
Reuters	:	ONGC.BO

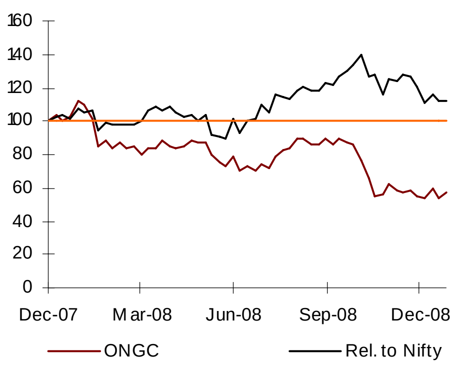
Price Performance

	1m	3m	6m	12m
Absolute	7	(26)	(17)	(46)
Relative	2	(10)	9	7

Shareholding Pattern



Price Performance Vs NIFTY



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We initiate coverage on ONGC, with a SELL rating and a target price of INR594/share.

Earnings sensitive to lower oil prices

ONGC earnings are not sensitive to rising oil prices due to the sharing of under-recoveries with oil marketing companies. While it is not the other way round, realisations and earnings are sensitive to declining oil prices. We believe that oil prices will remain lower for a longer period of time. Our oil price assumptions are 30% lower than the average consensus price assumption for CY2009-2012. For FY10e and FY11e, we have assumed oil price of USD52/bbl and USD57/bbl, respectively. We believe that at our oil price assumption of USD52/bbl for FY10e, ONGC net realisations, after meeting under-recoveries, would fall by 16% YoY to USD44/bbl.

Subsidy burden to impact net realisations

Our under-recoveries model indicates that under-recoveries on cooking fuels would continue in FY10e, and estimated losses at USD52/bbl could be INR203bn. We estimate that ONGC would share under-recoveries of INR53bn in the form of upstream discounts, which would reduce its net realisations by 16% YoY to USD44/bbl.

Other products realisations also down

LPG, naphtha, C2-C3 and kerosene contribute c15% to ONGC's revenues. With the fall in oil prices, realisations for these products have come down significantly. Since we expect oil prices to remain lower for a longer period of time, we do not see any recovery in realisations for them. This would not only keep margins under pressure, but also depress ONGC's earnings.

Valuations

We initiate coverage on ONGC, with a 12-month target price of INR594/share based on the sum-of-the-parts valuation. We value the core business including OVL at INR533/share, applying an 8x multiple on FY10e EPS of INR67/share. We value ONGC's 30% share in Cairn MBA field's at INR18/share. We value the listed investments at INR43/share to arrive at our target price of INR594.

Key financials

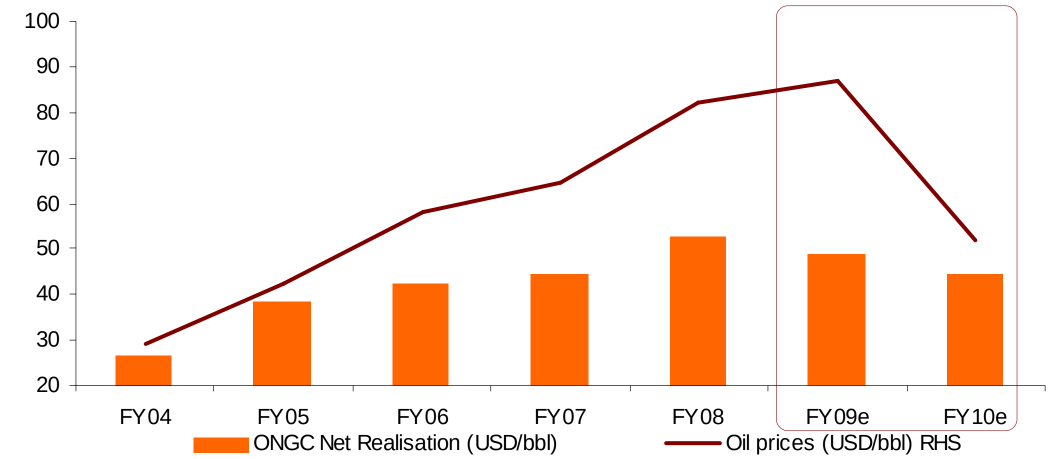
Year ended March	2008a	2009e	2010e	2011e
Net Revenue (INRbn)	604	633	528	546
EBITDA (INRbn)	303	315	242	253
EBITDA growth (%)	7%	4%	-23%	5%
PAT (INRbn)	167	180	124	127
PAT growth (%)	7%	8%	-31%	3%
EPS (INR/share)	78	84	58	59
Consolidated EPS	89	96	67	69
Consolidated EPS growth (%)	10%	7%	-30%	3%
PE (x)	8.1	7.6	10.9	10.5
PB (x)	2.2	1.9	1.8	1.7
EV/EBITDA (x)	4.8	4.4	6.1	6.0
RoE (%)	24%	22%	14%	14%

Source: Antique

No benefit of higher oil prices

During FY2006-08, despite higher and rising oil prices, ONGC's net realisations were almost flat. This signifies that ONGC may not be the beneficiary of oil prices, if they rise as the company has to share under-recoveries with oil marketing companies.

Oil price and ONGC's net realisations (USD/bbl)



Source: company, Antique

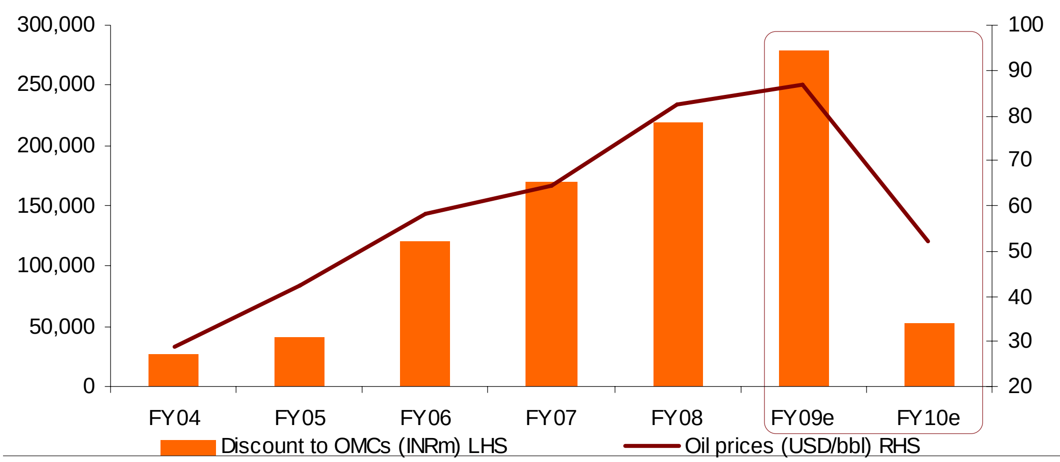
Subsidies to impact net realisations

We estimate, subsidies to OMCs would continue in FY10e despite lower oil prices.

Although the government had earlier fixed the FY09e subsidy burden for ONGC at INR385bn, we believe that current lower oil prices would force the former to revert to its old policy of upstream sharing of 33% of under-recoveries. According to recent media reports, the government may cap total upstream subsidies at INR300bn for FY09e, as the upstream capacity to share under-recoveries has been affected due to lower oil prices.

For FY10e, we expect that subsidy burden on the company would continue, as there would be under-recoveries on cooking fuels even at a lower oil price assumption of USD52/bbl. At USD52/bbl of oil prices, we estimate FY10e under-recoveries at INR203bn. Taking a historical reference from FY04, when there was no under recoveries on petrol and diesel, upstream companies used to share under-recoveries with oil marketing companies in a proportion of 33% of total losses. We expect a similar situation in FY10e. We estimate that ONGC would share the under-recoveries of INR53bn in the form of upstream discounts, which would reduce its net realisations by 16% YoY to USD44/bbl.

Discount to oil marketing companies (OMCs) takes away higher oil earnings



Source: Bloomberg, Antique

No volume growth in the near term

ONGC's domestic production, mainly from Bombay High, is in natural decline. The company is investing in drilling more wells as well as redevelopment of fields. But they would only help in maintaining the oil production at current levels. For the next 2 years, we have not taken any production growth for ONGC. ONGC's 30% share in oil production from Rajasthan MBA fields is valued on DCF basis.

OVL – Also in the same phase

OVL is in a significant investment phase, where most assets are in the exploration stage. After the successful exploration, production from upstream projects takes close to 4-8 years, depending on the complexity of the field and the development plan. We value earnings from OVL in computing our consolidated E&P earnings for ONGC.

OVL (excl. Imperial) production estimates (MMT)

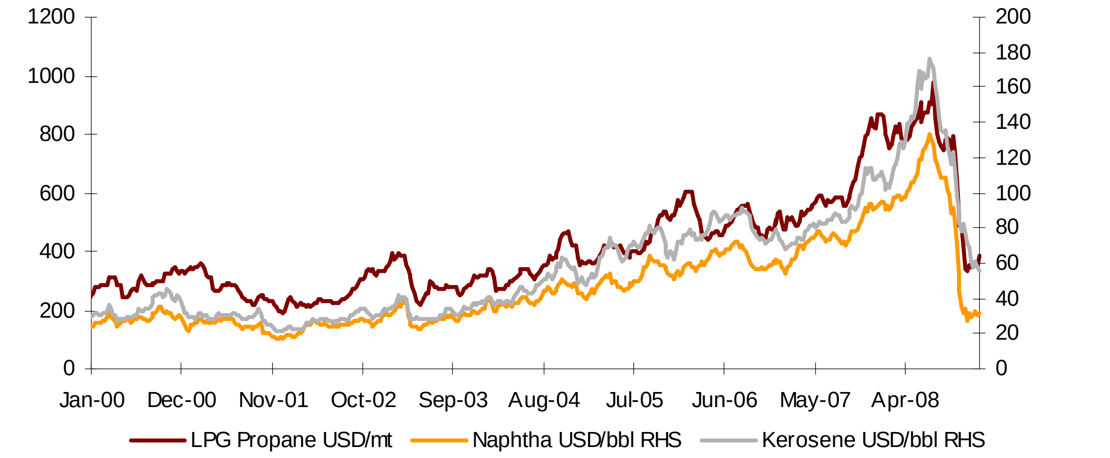
Year	FY07	FY08	FY09e	FY10e	FY11Ee
Production	7.95	8.8	8.65	8.48	8.92

Source: Company

Realisations from other products under pressure

ONGC's c15% revenue comes from production of LPG, naphtha, C2-C3 and kerosene on gas-based feedstock. With the fall in oil prices, realisations for all these products have come down significantly. Since we expect oil prices to remain lower for a longer period of time, we do not see any recovery in realisations for them. This would not only keep margins under pressure, but also depress ONGC's earnings.

Other product realisations, down with oil prices



Source: Bloomberg, Antique

30% stake in Rajasthan block – Low value to ONGC

ONGC is a 30% partner in Cairn Rajasthan block, with a proportionate right in production and development costs. However, as per PSC, ONGC is supposed to bear the entire royalty burden. We expect a royalty of 12.5% on Rajasthan crude, which reduces the value to ONGC drastically. For other assumptions of our DCF, please refer to the section on Cairn India Ltd. Our DCF estimate indicates the value of Rajasthan block to ONGC at INR18/share.

Schedule of investments

Investment	Shares (m)	Price	INRm
GAIL	61	171	10,475
Indian Oil Corp. Ltd.	106	345	36,705
MRPL	1,255	34	42,180
Petronet LNG Ltd.	94	32	3,000
Total			92,360
No. of shares (m)			2,139
Value of investments/share			**43**

Note: GAIL-Antique's target price, Other investments at 20% discount to current market price.

Source: Bloomberg, Antique

Valuations

We initiate coverage on ONGC, with a 12-month target price of INR594/share based on the sum-of-the-parts valuation. We value the FY10e core business earnings, including OVL at INR533/share, applying an 8x multiple on FY10e EPS of INR67/share. We value the 30% stake in the Cairn Rajasthan block at INR18/share based on DCF estimates of the field. We value investments in GAIL at our target price of INR171/share, and other listed investments, including MRPL, at a 20% discount to the current market value. The value of listed investments to ONGC is INR43/share.

Table of sum of parts valuation

Particulars	Earnings	Multiple	Value per share
Core business incl OVL	67	8	533
30% stake in Rajasthan block	DCF		18
Value of investments/share			43
Value per share			**594**

Source: Antique

Key risks to our estimates

- Oil prices higher than our estimates may affect our earnings estimates.
- Lower subsidy sharing than our estimates may affect our earnings estimates.
- Deregulation of transportation fuels and relieving upstream companies from sharing under-recoveries on cooking fuels have the potential to re-rate earnings and multiples for ONGC.
- Higher production growth may affect our earnings estimate.

Financials (INR bn)

Profit and Loss Account

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Revenues	569	604	633	528	546
Expenses	(284)	(301)	(318)	(286)	(292)
EBITDA	285	303	315	242	253
Depreciation & amortisation	(95)	(98)	(99)	(99)	(100)
EBIT	190	205	216	143	153
Interest expense	(0)	(1)	(1)	(1)	(1)
Other income	42	48	58	46	40
Profit before tax	232	252	273	188	193
Tax	(80)	(85)	(93)	(64)	(65)
Profit after tax	152	167	180	124	127
Recurring EPS (INR)	71	78	84	58	59
Consolidated EPS (INR)	79	89	96	67	69

Balance Sheet

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Share Capital	21	21	21	21	21
Reserves & Surplus	598	685	785	834	881
Networth	619	706	806	855	902
Debt	151	125	179	179	179
Capital Employed	770	831	985	1,034	1,081
Gross Fixed Assets	1,135	1,232	1,392	1,603	1,812
Accumulated Depreciation	(751)	(825)	(925)	(1,024)	(1,125)
Net Assets	384	407	467	579	688
Capital work in progress	82	110	127	151	174
Investments	57	59	59	59	59
Current Assets Loans & Advances					
Inventory	34	39	41	34	35
Debtors	28	44	46	38	39
Cash & Bank	193	224	342	258	205
Loans & advances and others	542	347	327	307	287
Current Liabilities & Provisions					
Creditors	88	109	115	95	99
Other liabilities & provisions	401	222	237	218	226
Net Current Assets	307	322	404	324	242
Deferred tax assets/(liabilities)	(65)	(74)	(79)	(85)	(89)
Misc expenses	5	7	7	7	7
Application of Funds	770	831	985	1,034	1,081

Per share data

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
No. of shares (Mn)	2,139	2,139	2,139	2,139	2,139
BVPS (INR)	290	330	377	400	422
CEPS (INR)	115	124	131	104	106
DPS (INR)	31	32	32	30	32

Margins (%)

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
EBITDA	50%	50%	50%	46%	46%
EBIT	33%	34%	34%	27%	28%
PAT	27%	28%	28%	24%	23%

Source: Antique

Cash Flow

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
PBT	240	252	273	188	193
Depreciation	64	83	99	100	101
Interest	(17)	(33)	(47)	(32)	(27)
Changes in working capital	19	(1)	36	(4)	28
Others	(3)	(4)	(3)	(3)	(3)
Tax paid	(73)	(83)	(88)	(58)	(61)
CF from operating activities	229	215	271	191	230
Capex	(96)	(136)	(177)	(234)	(233)
Investments	(1)	(6)	0	0	0
Others	29	9	0	0	0
Income from investments	17	30	50	35	30
CF from investing activities	(50)	(102)	(128)	(200)	(203)
Changes in share capital	0	0	0	0	0
Changes in Debt	3	(3)	54	0	0
Dividends & Interest paid	(77)	(78)	(80)	(75)	(80)
CF from financing activities	(74)	(82)	(26)	(75)	(80)
Net cash flow	105	31	118	(84)	(53)
Add: Opening balance	88	193	224	342	258
Closing balance	193	224	342	258	205

Key assumptions

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
WTI (USD/bbl)	64	82	83	52	57
INR/USD	45	40	45	43	41
Crude sales excl. Cairn & OVL (MMT)	24	24	24	25	25
OVL production incl Imperial (MMT)	8	9	9	10	10
Discount to OMCs (USD/bbl)	(22)	(33)	(34)	(7)	(8)
Net realisations to ONGC (USD/bbl)	45	53	48	44	48
Gas sales (MMcm)	20,306	20,432	20,534	20,637	20,740

Growth Indicators (%)

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
Revenue	18%	6%	5%	-17%	3%
EBITDA	4%	7%	4%	-23%	5%
PAT	8%	10%	8%	-31%	3%
EPS	8%	10%	8%	-31%	3%
Consolidated EPS	13%	13%	7%	-30%	3%

Valuation

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
PE (x)	9.2	8.1	7.6	10.9	10.5
P/BV (x)	2.5	2.2	1.9	1.8	1.7
EV/EBITDA (x)	5.3	4.8	4.4	6.1	6.0
EV/Sales (x)	2.7	2.4	2.2	2.8	2.8
Dividend Yield (%)	4.3%	4.4%	4.4%	4.1%	4.4%

Financial ratios

Year ended 31st March	2007a	2008a	2009e	2010e	2011e
RoE	24%	24%	22%	14%	14%
RoCE	25%	25%	22%	14%	14%
Debt/Equity (x)	0.2	0.2	0.2	0.2	0.2
EBIT/Interest (x)	882.9	348.2	255.3	169.2	181.1

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Mr. Dharmesh Dalal	91-22-4031-3331	dharmesh@antiquelimited.com
Mr. Manish Shah	91-22-4031-3332	manish@antiquelimited.com
Mr. Shiv Diwan	91-22-4031-3346	shiv.diwan@antiquelimited.com
Mr. Viraaj Teckchandani	91-22-4031-3327	viraaj@antiquelimited.com
Mr. Chaitanya Kotadia	91-22-4031-3336	chaitanya@antiquelimited.com
Mr. Anuj Sonpal	91-22-4031-3326	anuj@antiquelimited.com
Derivative Sales		
Mr. Ashish Maheshwari	91-22-4031-3350	ashish.maheshwari@antiquelimited.com
Mr. Jatin Dedhia	91-22-4031-3344	jatin@antiquelimited.com
Mr. Gaurav Kedia	91-22-4031-3349	gaurav.kedia@antiquelimited.com
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