# OIL AND GAS



#### December 16, 2008

## Supply destruction at USD 31/bbl

#### Crude prices down by ~70% following demand declines, economic worries

Crude prices have fallen ~70% since their USD 147/bbl peak in July, in line with our earlier view (for more details, please refer our report titled 'Crude set to correct from Q3CY08', dated July 07, 2008). However, the pace of correction had been more than expected due to the credit crises, the recent almost shutdown of global trade and a sharp USD appreciation against global currencies. Weakened demand expectations, owing to slowdown in economies and lag effects of high prices have been exacerbated by the ongoing financial turmoil across world markets.

#### Expect demand destruction to continue in CY09; CY09E demand at -0.4%

Crude demand destruction is expected in CY09 due to reduction of direct and indirect expenditure on fuel by consumers across the world; this is owing to economic slowdown and credit crunch impacting their earnings and savings. A contraction of 0.4% in demand is indicated by empirical evidence related to global GDP growth. This is in addition to demand growth rate of -0.27% in CY08.

#### No supply side issues in short-to-medium term

Major oil projects near completion/recently completed are on schedule. With demand declining and no supply issues likely over the short-to-medium-term, OPEC spare capacity is back to June 2003 levels (~4.4 mbpd, up 89% since July 2008); it has, thus, ceased to be a significant driver of global crude prices.

#### OPEC production cuts and discipline key determinants of crude prices

As in the past, during high spare capacity, OPEC production cuts remain key determinants of crude prices. Already there have been two cuts, 0.5 mbpd in September and 1.5 mbpd in November, 2008. We anticipate further controlled sequential cuts of 1.6 mbpd to balance the crude markets worldwide. Our confidence in further cuts comes from crude price breaching Saudi Arabia's CY08 nil-fiscal-deficit break-even level of USD 49/bbl. A key factor to watch out for, going forward, will be the discipline and adherence to announced cuts within OPEC nations.

# Outlook: Reducing FY09, FY10 and long-term crude price average to USD 89/bbl, USD 49/bbl and USD 72/bbl respectively

Crude price outlook is slightly bearish in the immediate future due to slowdown in global GDP growth. While OPEC cuts are a move to balance the market, they may only be effective once visibility on global GDP stabilizes, which we expect to be balanced by mid-H1CY09. Meanwhile, in the short term, we expect crude prices to bottom at levels higher than USD 31/bbl, dictated by the project economics of non-conventional crude sources. While marginal improvements can be expected due to USD depreciation (against global currencies), crude prices are bound to improve continuously only after GDP growth expectations get visibly bullish. Beyond CY11, assuming pick-up in world trade and economy, we expect prices to strengthen as focus shifts back to supply factors. Accordingly, we have modified our assumptions of crude price as follows:-

Crude price assumptions	FY09	FY10	FY11	Long- term	CY08	CY09	CY10	Long- term
Revised (USD/bbl)	89	49	60	72	100	46	59	72
Earlier (USD/bbl)	100	80	75	75	NA	NA	NA	NA
Revision (%)	(11.5)	(38.8)	(20.0)	(4.0)	NA	NA	NA	NA

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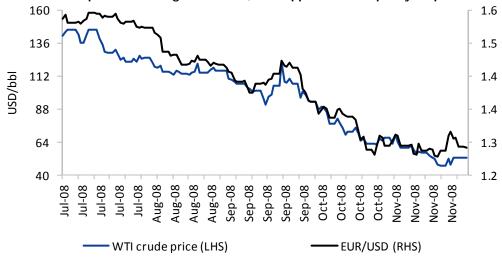
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# Crude near ~USD 42/bbl as it chases incrementally falling demand

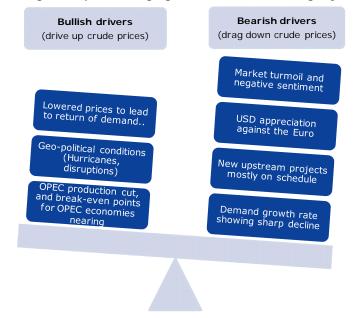
Crude prices have fallen almost 70% since their USD 147/bbl peak in July, in line with our earlier view (for more details, please refer our report titled 'Crude set to correct from Q3CYO8', dated July 07, 2008). We had been cautious on the crude price due to the higher wallet share of crude (demand destruction), reducing intensity of crude demand (a signal of demand adjusting to price increases) and visible increase in OPEC spare capacity. However, the pace of correction had been more than expected due to the credit crises, the recent almost shutdown of global trade and a sharp USD appreciation against global currencies.

Chart 1: Crude price searching for bottom; USD appreciation is partly responsible



Source: Bloomberg

Fig. 1: Factors affecting crude price: Hanging in the balance; still slightly bearish



Source: Edelweiss research

An appreciating USD also contributed to the decline in crude price. This currency movement trend may reverse, but the impact on crude price will be temporary.

We discuss the following factors that drive the crude demand:

- Global demand for crude plummeting
- No supply-side issues in the short-to-medium term
- Expectation of further OPEC production cuts
- Cost dynamics of various sources of crude indicate it bottoming out in H1CY09
- Outlook: OPEC cuts to improve crude prices, to average USD 49/bbl in FY09

# Expect crude demand destruction to continue in CY09; CY09E demand to de-grow by 0.4%

IEA, in its recent November release of "Oil Market Report" has finally moved its CY08 demand growth estimate to negative territory. IEA now expects CY08 growth at -0.27% or -0.23 mbpd of incremental demand. While IEA still expects CY09 crude demand growth at positive +0.51% (though at a reduced base), we believe that the demand growth rate in CY09 will also be in negative territory.

# Empirical analysis shows crude demand growth fall significantly at sub-2.5% global GDP growth

Crude demand growth and GDP growth have a strong relationship, as shown in the chart below. As evident in the chart below, when global GDP growth rate goes below 2.5%, crude demand intensity becomes negative. Our empirical evaluation also confirms the same (see regression chart below). IMF estimates CY09 global GDP growth rate at 2.2%. Using the same, we estimate the global GDP crude demand growth at -0.4%, which implies demand destruction.

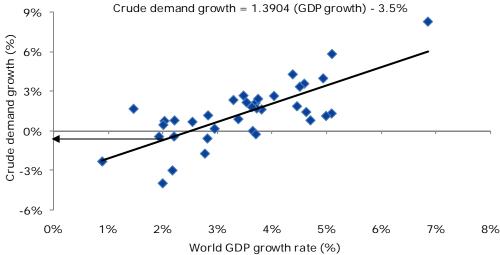
Moreover, we believe that there are possibilities for IMF to revise the global GDP growth lower, as economic data emerging since the IMF's last update (November 2008) indicate worsening of the same. Though IEA now seems to have factored some of the incremental bearishness into its CY08 number, we believe that CY09 numbers are yet to capture the total impact of the global slowdown.

8%
6%
4%
2%
0%
-2%
-4%
Expression of the control of

Chart 2: Crude demand growth is positively correlated with global GDP growth

Source: IEA, Edelweiss research

Chart 3: Regression chart indicates CY09E crude demand growth at -0.4%

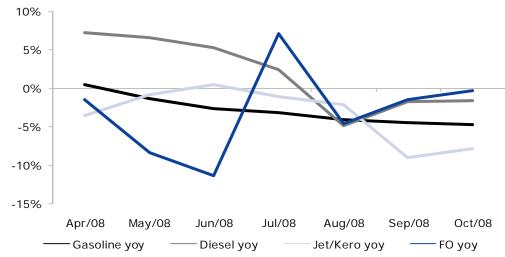


Source: Edelweiss research

#### Monthly data of Y-o-Y demand growth of products are already in the negative zone

Demand growth rate of products (% Y-o-Y) are already in negative territory. The growth rates of gasoline and diesel demand in OECD have fallen to -4.5% and -1.7% respectively. The negative demand is an outcome of lagged effects high crude prices earlier. At the same time, financial turmoil, and thereby slowdown in economies, have lowered demand expectations; as global consumers have been reducing consumption leading to negative impact on demand (direct as well as indirect) of petroleum products.

Chart 4: Strong demand decline for petroleum products in OECD countries



Source: IEA, Edelweiss research

# Even though US gasoline prices have fallen below USD 1/gallon currently, the primary transportation fuel still faces off take issues due to credit market crunch and collateral damage in the economy.

#### China slowdown also impacting crude demand growth negatively

China is a major driver of global crude accounting for ~40% of incremental demand growth. With China's growth engine slowing down (despite the recent USD 600 bn stimulus package to increase local demand), global crude demand growth is likely to be impacted significantly.

China's export-driven economy relies on trade with the US, EU, and Japan to a large extent. Its central bank estimates that every 1% drop in the US economic growth translates into a 6% fall in Chinese exports. Growth in exports to the US has dropped significantly since the start of the year, from 20.4% in Q1CY08 to 15.6% in Q2CY08, Y-o-Y. Growth fell to 12.4% in Q3CY08, following the eruption of subprime loan problems.

#### Leading indicators of gasoline/diesel demand point to crude demand slowdown

The US has had an alarming decline in the number of vehicles sold per month (down 32% yo-y). The rate of new car registrations in EU and Japan has declined to -15% as well. Even Indian car sales are down more than 16%.

With cars contributing the lion's share of the decline, domestic expenditure on fuel (gasoline and diesel) is expected to be cut down. Trucks too have seen a decline in sales, which does not augur well for diesel sales. The lag effects of demand destruction and an economy in the throes of a recession are forcing many leading car manufacturers to cut costs as they face rapidly declining sales and fears of bankruptcy in some cases.

These leading indicators of primary crude product demand paint a bleak picture for overall crude demand in the short-to-medium term.

25.0 13.0 (% y-o-y) 1.0 (11.0)(23.0)(35.0)Mar-08 US car sales EU new car registrations\* Japan new car registrations\*\* India car sales

Chart 5: Vehicle sales/registration are declining across the globe

Source: Reuters, Edelweiss research

# Sharp decline in industrial indices also indicate weakening crude demand

Industrial production levels are a proxy for growth and an approximate indicator of industrial fuel (diesel, naphtha, fuel oil) usage as well. Sharp fall in IP indices across major economies have been noted in the recent past.



Chart 6: Industrial production growth rates have also fallen sharply

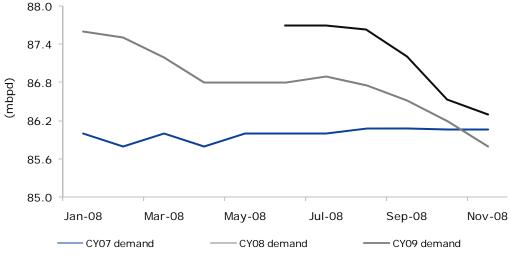
Source: Bloomberg, Edelweiss research

#### IEA's CY09 crude demand growth will possibly be revised even lower

We believe that IEA's CY09 crude demand numbers are also set to be revised downwards.

IEA has been trimming demand estimates in line with the reduction of IMF's estimates of global GDP growth rates.

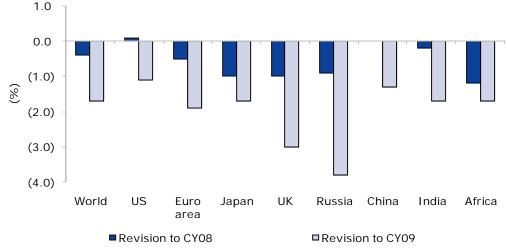
Chart 7: Reduction of demand forecasts by IEA; further trims expected for CY09



Source: IEA, Edelweiss research

The IEA forecasts are based on IMF forecasts of GDP growth. While IMF has drastically curtailed its GDP growth rate forecasts for the world to factor in effects of extreme financial mayhem, conditions have worsened since their last estimations.

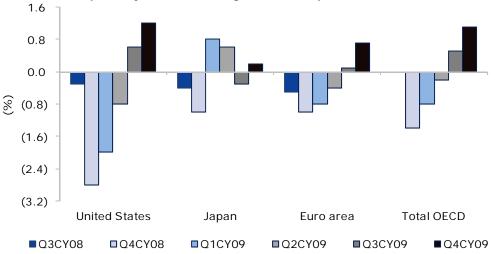
Chart 8: IMF GDP growth forecast revisions: November 2008 versus July 2008



Source: IMF

Crude prices are adjusting to the continually declining demand in line with slowing economies, which can be observed more clearly through the OECD economies' quarterly forecasts of GDP growth.

Chart 9: OECD quarterly GDP forecasts give a clearer picture of bearishness



Source: OECD

We expect the IMF to downgrade its GDP growth forecasts further to account for the latest recessionary evidence from many large economies. The IEA crude demand forecasts are expected to follow suit, and in our view, the body's present expectations of CY09 growth are optimistic, and shall be trimmed down further. We anticipate CY09 to also show de-growth, due to lagged effects of demand destruction.

# No supply side issues in short-to-medium term; Spare capacity is no longer a driver for crude prices

OPEC spare capacity, which was the main driver of crude prices earlier is not no more significant. Low OPEC spare capacity amplifies impact of news flows that push crude price upwards – supply outage, geopolitical issues, and natural disasters. With OPEC total spare capacity reaching levels higher than 6.5 mbpd, focus has shifted from the supply-side to demand issues, especially after the recent financial crisis.

Lower demand of crude and start of new supplies have increased our comfort on the spare capacity. We expect addition in crude supplies during CY08-10 at 5.3 mbpd against incremental demand of 0.6 mbpd.

However, concerns on long-term supplies remain due to increase in decline rates for crude production from 6.7% today to 8.6% in CY30 leading to increased requirements of new crude to offset decline from existing fields.

#### Recent planned projects have started in time

Upstream projects planned to start in CY08/CY09 with minimal delays in start-ups. Crude supplies are expected to increase as these projects scale-up to full capacity, allaying any concerns on crude supplies in near future. Moreover, as crude move to over-supply zone, certain crude fields have been shut in want of buyers of their crude – Dammam oilfield in Saudi Arabian (75 kbpd, which was to be restarted and scaled up); and Moneefa oilfield (90 kbpd).

Table 1: Minimal delays in timelines of major new oil projects

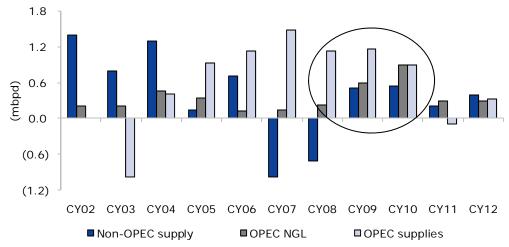
Table 1. Willimar delays in timelines of major new on projects					
Field/ Project	Location	Peak production (mbpd)*	Status		
South Khylchuyu	Russia	0.14	Started Aug 2008		
Horizon Ph1	Canada	0.11	On schedule : Dec 2008		
Vincent	Australia	0.10	Started Aug 2008		
Thunder Horse	Gulf of Mexico	0.25	Started June 2008		
Sakhalin 2	Russia	0.16	Early 2009 start expected		
Khursaniyah	Saudi Arabia	0.50	Started Sept. 2008		
Agbami	Nigeria	0.25	Started July 2008		
Shaybah I	Saudi Arabia	0.25	Possible delays beyond end of 2008		
Akpo	Nigeria	0.23	Early 2009 start expected		

Source: Industry sources, Edelweiss research

#### Incremental planned crude supplies are also comfortable

We expect addition in crude supplies during CY08-10 at 5.3 mbpd against incremental demand of 0.6 mbpd. This increases our comfort on the spare capacity as any delays in the supplies have more than been offset by lower demand outlook on crude.





Source: IEA, Edelweiss research

#### OPEC spare capacity have moved to > 6.5 mbpd; Not relevant anymore

With demand falling away, and most near-term projects suffering only minimal delays, spare capacities have entered a comfort zone. Presently OPEC spare capacity is back to June 2003 levels (~4.4 mbpd, up 89% since July 2008); it has, thus, ceased to be a significant driver of global crude prices. With recent crude demand outlook worsening, OPEC spare capacity is expected to reach 6.7 mbpd in CY09, levels last witnessed in June 2002, when crude prices were ~USD 25/ bbl.

Chart 11: Spare capacity is up 32% since July

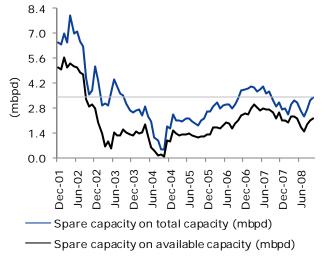
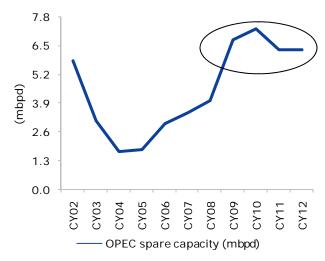


Chart 12: Comfort in spare capacity expected till CY10



Source: IEA, Edelweiss research

Source: IEA, Edelweiss research

## Longer term (post CY11) supplies still remain a concern

The current global credit crunch could delay the long-term and high-leverage oil projects. Also, the crude price falling to sub-USD 60/bbl levels is causing concerns relating to break-even prices.

- According to the oil major, Petrobras, the break-even (total cost) of new oil is USD 60/bbl; and
- Total has raised its estimation of Canadian oil sands projects break-even (total cost) to USD 85/bbl.

Thus, long-term development of the oil industry could be at risk due to lack of investments, which may cause extremely high oil shortages once demand returns post-recession.

In fact the same concern has been raised by IEA in its recent publication of "World Energy Outlook (WEO) 2008", which states that "while market imbalances will feed volatility, the era of cheap oil is over". IEA's view of the same comes from its field-by-field analysis, which indicates that decline rates are likely to rise significantly in the long term – from 6.7% today to 8.6% in CY30.

#### Geo-political issues, though prevalent, have been relegated to the background

Low OPEC spare capacity amplifies impact of news flows that push crude price upwards – supply outage, geopolitical issues, and natural disasters. With OPEC spare capacity reaching levels higher than 6.5 mbpd, focus has shifted from the supply-side to demand issues, especially after the recent financial crisis.

In fact, bearishness in the market is rampant, leading to amplification of any negative news, while positive (that which drive crude upwards) news is ignored, as evidenced by the examples below:

- Nigeria: Kidnappings of workers and foreigners, and sabotage of oil wells.
- Iran: Expectations of the US sanctions against Iran due to its nuclear programme.
- Gulf of Mexico: Hurricanes Gustav and Ike disrupted functioning of oilfields, refineries, and pipelines.
- Georgia-Russia: Military operations which forced closure of BP's pipelines are over.
- Azerbaijan: Fire in BTC pipeline reduced output from Russia.

# OPEC production cuts is the deciding factor; expect further OPEC production cuts by 1.6 mbpd

OPEC had announced production cuts of 1.5 mbpd effective November 1, 2008, which seems to be ineffective in controlling the crude prices due to further deterioration of the global economic condition. Since then, crude prices have moved to USD 40-45/bbl range, lower than current budgetary break-even prices for the OPEC countries. We expect OPEC to cut production by 1.6 mbpd to balance the crude market.

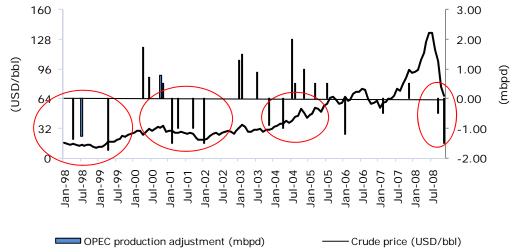
We expect further production cuts to be announced by OPEC at their meeting in Algiers on December 17, 2008. While production cuts of 1.6 mbpd would be an ideal one (from current production levels), there are possibilities of target cuts being lower due to the issue of discipline among its OPEC members. The anticipated cut is expected to be effective from January 1, 2009; and the impact is likely to reach the markets with an lag of about 1-2 months (the duration for new shipments of crude to reach their destinations)

#### OPEC's sequential production cuts have impacted crude price, but with a lag

Historically, OPEC has adjusted its production levels to control price levels of crude several times. Key highlights/trends of OPEC's production-volume management are:

- Production adjustments are made sequentially: A round of adjustments is the norm, with intensity of each adjustment varying according to the magnitude of further price correction needed.
- Cuts are impactful: The crude price usually rises after a cut, or at least stabilizes. A round of cuts has always resulted in a rise in crude price, and the price has always settled at a higher plane than its previous stable phase.
- Lagging impact: The crude price starts showing effects of the adjustment after a lag of
   ~two-three months (in line with the time it would take for reduced output being shipped
   to reach its destination).

Chart 13: OPEC production cuts/increases has had a lagged impact on crude prices



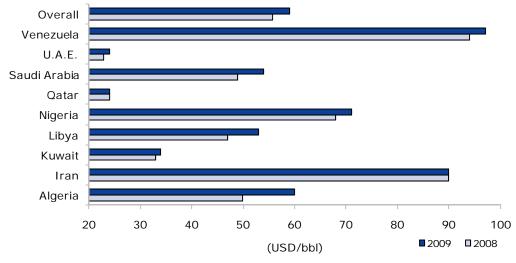
Source: Reuters, Industry sources, Edelweiss research

#### Current crude price much below OPEC's budgetary break-even

Crude price is a major determinant of the economic health and fiscal policies of OPEC countries. Assuming that the planned budgets of various economies are implemented, the crude price needed to have a nil fiscal deficit (referred to henceforth as the budgetary breakeven) for the year is as below.

Accordingly, the OPEC break-even crude price (weighted average of various price levels for countries, in the ratio of their production contributions) is ~USD 56/bbl and ~USD 59/bbl for 2008 and 2009 respectively.

Chart 14: Budgetary break-even: USD 56/bbl and USD 59/bbl for 2008 and 2009, respectively



Source: IMF

#### Crude markets need further production cuts of 1.6 mbpd; OPEC discipline is the key

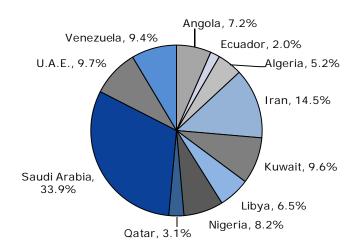
Considering the quantum of crude price fall and anticipated slowdown in demand, the recent large production cut of 1.5 mbpd (effective November) earlier looked sufficient in stabilizing the crude market. However, after the recent economic data which were extremely bearish, we now believe that the crude production cuts of 1.6 mbpd are required to stabilize the market.

Energy Information Administration (EIA) expects a reduction of at least 1.1 mbpd out of the 1.5 mbpd cut announced earlier, which indicates a  $\sim$ 70% compliance as against  $\sim$ 50% historically. However, the biggest test of the market will come from further discipline of future expected cuts from OPEC.

#### Saudi Arabia has the casting vote

Saudi Arabia, the largest producer in OPEC (~31% of total production), is a crucial player in deciding the production cuts and discipline in implementing the same (in the past, the country has been criticized for not adhering to targets and producing more than its quota). Till now it has resisted calls of other members for further cuts; however, with crude prices under its budgetary break-even, it will be under pressure to accede to the same. Saudi Arabia has, for the first time since OPEC stopped putting forth a price target several years ago, contended that USD 75/bbl is a "fair price" for oil in the recent OPEC meeting at Cairo.

Chart 15: OPEC production share: Saudi Arabia contributes more than one-third



Source: Industry sources, Edelweiss research

#### Price correction despite OPEC production cuts; controlled, sequential cuts expected

OPEC had cut production from November 1, 2008 by 1.5 mbpd, and subsequently, we had seen 70% compliance by OPEC on the cuts. Even this large adjustment by OPEC in their production levels has failed to prop up prices, as the volume of the cut has been inadequate to balance the markets. With every incremental economic data coming out to be more bearish than the earlier one, crude price market had been adjusting to the same, and hence, correcting downwards. This implies that the immediate-term outlook on crude is bearish as visibility of global GDP growth rate still remains hazy. This has been amplified by the virtual stoppage of global trade due to vanishing trade finance.

OPEC may also be reluctant to cut production sharply till the global demand outlook stabilises as any higher-than-required cuts in production may lead to a slower recovery in crude demand. This leaves no option for OPEC but to have controlled and sequential production cuts. We estimate OPEC needs to cut production by another 1.6 mbpd to stabilize the market, though we expect the cuts to be lower at the next meeting on December 17, 2008 (effective January 1, 2009). Discipline of the announced cuts is the most important factor that will drive crude markets, going forward.

## Crude cost dynamics indicate maximum tolerance of USD 31/bbl

Recent slowdown in crude demand is likely to impact the timeline of certain projects.

- Projects in the planning stage (pre-development) may get postponed due to the credit crises and low level of crude prices.
- Projects in development stages are likely to get delayed due to lower management bandwidth.
- EOR (Enhanced oil recovery) projects, which have immediate impact on crude production, may possibly get delayed.

With lower incentives for project capital expenditures, a typical decline rate of crude production of 6.5% should balance out the crude market in a few months, especially considering that the market is oversupplied by only ~2%. This, combined with further expectation of OPEC production cuts (our expectation of 1.2 mbpd) will cause crude prices to stabilize in the medium term (6 months - 1 year). Meanwhile, in the short term, we expect crude prices to bottom at levels higher than USD 31/bbl, dictated by the project economics of non-conventional crude sources (see chart).

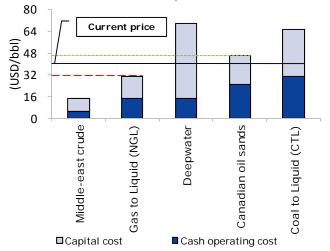
Table 2: Crude production from various sources

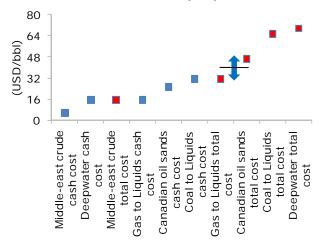
Source	Cash cost (USD/bbl)	Total cost (USD/bbl)	% of total crude capacity Details
Middle-east crude	5	15	~17.4 Large resources in the middle-east typically imply low per-barrel production costs for crude.
Gas to Liquids (NGL)	15	31	~5.9 Conversion of natural gas to liquid fuels like naphtha and diesel is prevelant in gas-rich economies like the OPEC countries.
Deepwater	15	70	~23.3 Increasingly, incremental supplies coming up are from deep-water ocean trenches/beds, extracted at high capital costs.
Canadian oil sands	25	46	~1.7 Humongous, untapped oil-sand reserves are looking attractive; however, environmental management costs are very high.
Coal to Liquids	31	65	~0.5 Coal can also be converted to liquid fuel, and is being looked at as an alternative source, though at very high operating costs.

Source: Industry sources, Edelweiss research

Currently, crude prices are above cash operating costs and below the total production cost of all non-conventional sources except NGL's (Natural-Gas-Liquids, or Gas-to-Liquid production). Since the option-value of non-production is very tangible (as gas is limited, and has an alternative market too) and the removal of NGLs from the oil market can potentially swing prices the other way (OPEC NGLs volumes are 5.1 mbpd or  $\sim 6\%$ ), the total cost of producing natural gas liquids (at gas price of USD 1.0/mmbtu) is expected to represent the maximum tolerance for fall in crude prices.

Charts 16(a) and (b): Crude price to remain above USD 31/bbl, the total cost of Gas-to-Liquid production (NGLs)





Source: Industry sources, Conoco-Philips, Sasol, Petrobras, Edelweiss research

## Outlook: Reducing FY10 crude average to USD 49/bbl

#### Price correction has been sharper than expected

While we had been negative on crude price since July ('Crude set to correct from Q3CY08', dated July 07, 2008), the quantum and velocity of correction have been surprising. Crude has moved from peak of USD 147/bbl to USD 40-45/bbl currently (~70% correction in five months).

#### Demand has seen a drastic fall: demand destruction effects to extend into FY09

Decline in demand, especially from advanced economies (a lot of whom are facing recession), has pushed overall demand to de-growth zone. With incremental bearish data flowing in from almost all major economies, lagged effects of demand destruction are likely to extend well into FY09.

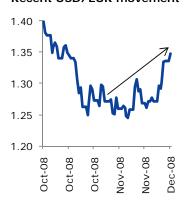
### Supply side issues are almost absent; OPEC spare capacity is extremely comfortable

Major crude supply projects have just started, and the ones near completion are facing only minor delays. OPEC spare capacity has ballooned to very high levels, and is thus no longer a driver of crude prices.

#### Crude decline despite OPEC production cuts; controlled, sequential cuts expected

OPEC had cut production from November 1, 2008 by 1.5 mbpd, and subsequently, we had seen 70% compliance by OPEC on the cuts. Even this large adjustment by OPEC in their production levels has failed to prop up prices, as the volume of the cut has been inadequate to balance the markets (mostly due to incremental bearish data). OPEC may also be reluctant to cut production sharply till the global demand outlook stabilises as any higher-than-required cuts in production may lead to a slower recovery in crude demand. This leaves no option for OPEC but to have controlled and sequential production cuts. We estimate OPEC needs to cut production by another 1.6 mbpd to stabilize the market, though we expect the cuts to be lower at the next meeting on December 17, 2008 (effective January 1, 2009). Discipline of the announced cuts is the most important factor that will drive crude markets, going forward.

#### Recent USD/EUR movement



#### We estimate crude price to average USD 49/bbl in FY10

With every incremental economic data coming out to be more bearish than the earlier one, crude price market had been adjusting to the same, and hence, correcting downwards. This implies that the immediate-term outlook on crude is bearish as visibility of global GDP growth rate still remains hazy. This has been amplified by the virtual stoppage of global trade due to vanishing trade finance. Any short-term improvement in crude prices shall be the resultant of currency movements (depreciation of the USD against EUR, which we believe is currently undergoing – see chart alongside). A visibly bullish GDP growth outlook is the only driver for a sustained and sequential increase in crude prices.

Beyond CY11, assuming pick-up in world trade and economy, we expect prices to strengthen as focus shifts back to supply factors, especially considering possibilities of production declines due to reduced investments in ongoing projects.

Accordingly we are revising our crude price assumptions, which are summarized below:

Table 3: New FY10 crude price estimate at USD 49/bbl

Crude price	FY09	FY10	FY11	Long-	CY08	CY09	CY10	Long-
assumptions				term				term
Revised (USD/bbl)	89	49	60	72	100	46	59	72
Earlier (USD/bbl)	100	80	75	75	NA	NA	NA	NA
Revision (%)	(11.5)	(38.8)	(20.0)	(4.0)	NA	NA	NA	NA

Source: Edelweiss research



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Bharat Petroleum Corporation, Cairn India, Chennai Petroleum Corp., Engineers India, Finolex Industries, Hindustan Petroleum Corporation, Indian Oil Corporation, Indraprastha Gas, ONGC, PSL, Reliance Industries

#### **Recent Research**

Date	Company	Title	Price (INR)	Recos
10-Dec-08	Aban Offshore	Risks outweigh growth story; Initiating Coverage	703	Reduce
24-Nov-08	Reliance Industries	Cash flow is king; Company Update	1,127	Buy
04-Nov-08	Oil & Gas	Monthly Update		
3-Nov-08	HPCL	Inventory losses hit bottomline hard; Result Update	208	Buy

#### **Distribution of Ratings / Market Cap**

#### **Edelweiss Research Coverage Universe**

	Buy	Accumulate	Reduce	Sell	Total
Rating Distribution*  * 2 stocks under rev		57 rating withheld	30	8	187
>	50bn	Between 10b	n and 50	bn <	10bn
Market Cap (INR)	67	48	3		72

#### **Rating Interpretation**

Rating	Expected to
Buy	appreciate more than 20% over a 12-month period
Accumulate	appreciate up to 20% over a 12-month period
Reduce	depreciate up to 10% over a 12-month period
Sell	depreciate more than 10% over a 12-month period

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