Equity Research

March 14, 2021
BSE Sensex: 50792

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Re-initiating coverage

Oil & Gas and Petrochemicals

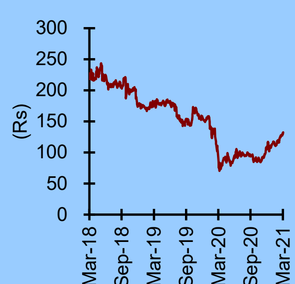
Target price Rs205

Shareholding pattern

	Jun '20	Sep '20	Dec '20
Promoters	56.7	56.7	56.7
Institutional investors	26.0	13.2	26.3
MFs and others	5.6	5.4	5.2
FIs/ Banks	13.2	0.8	14.3
FIIs	7.2	7.0	6.8
Others	17.3	30.1	17.0

Source: www.nseindia.com

Price chart



INDIA

ICICI Securities

Oil India

BUY

Oil jump to bring big gains; other upsides, too **Rs132**

We reinitiate coverage on Oil India (OIL) with a BUY rating and target price of Rs205 (55% upside). We estimate OIL's FY22E EPS to be up 131% YoY driven by 32% YoY rise in Brent and jump in share of profit from Numaligarh Refinery (NRL) on hike in its stake to 70%. Oil price recovery has been driven by OPEC+ capping supply and vaccine rollout hopes driving global oil demand to pre-Covid levels in a few quarters. Raising stake in NRL would be earnings-accretive even if we assume an excise duty cut of Rs5/l on auto fuels. If excise is not cut and/or stake rises to 83%, upside to FY22E EPS would be 11-21%. OIL's FY22E gas price would be up just 8% YoY on current formula. However, a formula change may set floor price at US$3-4/mmbtu, which would boost FY22E EPS by 3-10%.

- **Oil price recovery to drive surge in FY22E EPS**: Brent is over US$69/bbl now *vs* ~US$45/bbl in FY21E driven by recovery in demand from Apr'20 lows and OPEC+ capping supply to ensure supply deficit when second wave of Covid in the US and Europe hit demand recovery. Vaccine rollout is expected to drive global oil demand recovery in H2CY21E. We estimate Brent at US$60/bbl to drive 131% YoY rise in FY22E EPS. Upside to FY22E EPS would be 11% if Brent is at US$65/bbl.
- **Stake hike in NRL to be earnings-accretive**: OIL is set to raise its stake in NRL from 26% to 69.6-83.3% (69.6% in base case) for a consideration of Rs70bn-92bn. NRL is allowed to keep 50% of the excise duty it collects, which boosts its profit. Increase in NRL's FY22E GRM would be US$27.5/bbl even if excise is cut by Rs5/l (base case) and US$32.5/bbl if excise in not cut. OIL's share in NRL's profit, net of rise in interest cost due to debt raised to fund the stake rise, is set to increase by: 1) Rs7.9bn (94%) YoY in base case, 2) by Rs11.9bn (143%) YoY if excise is not cut, and 3) by Rs10.1bn-15bn (121-179%) YoY if stake is hiked to 83.3%.
- **Gas price formula change on the cards?** As per the prevailing formula, gas price plunged to a low of US$2/mmbtu in H2FY21 and is estimated to be up just 8% YoY at US$2.5/mmbtu in FY22E. A committee appointed to review the formula, as gas prices have been consistently below cost for domestic producers, may have proposed a floor price; if set at US$3-4/mmbtu, it would boost FY22 EPS by 3-10%.
- **Target price implies 55% upside; share price reflects long-term oil price of just US$48/bbl:** Our target price of Rs205 implies 55% upside and is based on: 1) Brent at US$60/bbl in FY22-FY23E and in the long term; 2) gas price at US$2.5-3.1/mmbtu in FY22-FY23E (LT US$4/mmbtu); 3) NRL stake valuation at 3x FY21E EV/EBITDA (Rs82bn); and 4) Mozambique gas reserves at 0.67x valuation in last deal in the asset (US$400mn). OIL's current share price reflects long-term Brent of just US$48/bbl (OIL's realisation at US$47/bbl) *vs* current price of US$69/bbl.

Market Cap	Rs190bn/US$2.8bn
Reuters/Bloomberg	OILI.BO/OINL IN
Shares Outstanding (mn)	1,084.4
52-week Range (Rs)	139/66
Free Float (%)	43.3
FII (%)	6.8
Daily Volume (US$'000)	2,420
Absolute Return 3m (%)	20.3
Absolute Return 12m (%)	76.6
Sensex Return 3m (%)	10.2
Sensex Return 12m (%)	42.3

Year to March	FY20	FY21E	FY22E	FY23E
Revenue (Rs bn)	121.7	87.9	252.3	256.3
Net Income (Rs bn)	26.3	16.0	37.0	40.4
EPS (Rs)	24.2	14.8	34.1	37.2
% Chg YoY	-38.3%	-39.0%	130.7%	9.0%
P/E (x)	5.4	8.9	3.9	3.5
CEPS (Rs)	38.4	29.4	50.2	53.4
EV/E (x)	6.8	11.2	4.0	3.7
Dividend Yield (%)	8%	5%	11%	11%
RoCE (%)	9%	5%	16%	15%
RoE (%)	15%	10%	15%	14%

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Reinitiate coverage with BUY rating

Oil price surge to drive strong EPS rebound; other upsides, too

Oil rebound & NRL stake rise to drive 131% YoY rise in FY22E EPS

We reinitiate coverage on OIL with a **BUY** rating and target price of Rs205 (implying 55% potential upside). Our target price is based on:

- Brent at US$60/bbl in FY22E-FY23E and also in the long term.
- Gas price at US$2.5-3.1/mmbtu in FY22E-FY23E (LT US$4/mmbtu).
- Valuing stake in NRL at 3x FY21E EV/EBITDA (Rs82bn).
- Mozambique gas reserves at 0.67x valuation (US$400mn) in the last deal in the asset. Total bought 26% stake in the asset at US$3.9bn in Sep'20. OIL holds 4%.
- Investment in Russian E&P assets at ~0.5x of post-impairment cost of acquisition.

Table 1: Main PO assumptions

Net oil price in FY21E (US$/bbl)	44.0
Net oil price in FY22E (US$/bbl)	59.0
Net oil price in FY23E (US$/bbl)	59.0
LT Brent oil price in FY24E (US$/bbl)	60.0
LT net oil price from FY24E (US$/bbl)	59.0
FY21E gas price (US$/mmbtu)	2.3
FY22E gas price (US$/mmbtu)	2.5
FY23E gas price (US$/mmbtu)	3.1
LT gas price from FY24E (US$/mmbtu)	4.0
2P reserves (mmboe)	1,385
Discount rate (WACC)	10.5%

Table 2: PO of Rs205/share

	mmboe	US$/boe	US$ mn	Rs/share
2P oil reserves	553	2.3	1,291	87
2P gas reserves	832	1.3	1,082	73
4% stake in Mozambique Area 1 gas discoveries at cost	333	1.2	400	27
Value of Russia & other overseas assets	271	2.0	542	36
Valuation of E&P assets	**1,989**	**1.7**	**3,315**	**223**
Stake in NRL at 3x EV/EBITDA			1,128	76
Less: Net debt			2,290	154
Tax free bonds & other cash equivalents			265	18
5% discount to market value of stake in IOC			625	42
Target price			**6,230**	**205**
Number of shares (mn)				1,084
Exchange rate				73

Source: Company data, I-Sec Research

Our **BUY** rating is premised on the following arguments:

- **Oil price recovery to drive surge in FY22E EPS**: Brent is up to US$69/bbl at present. Oil price recovery from the lows of Apr'20 has been driven by OPEC+ cutting supply sharply (9.7m b/d) from May'20 and gradual recovery in demand from lows of Apr'20. Second wave of Covid in the US and Europe reversed demand recovery from Oct'20, but OPEC+ capped supply to ensure supply deficit. Vaccine rollout is expected to drive global oil demand recovery in H2CY21E and take oil demand to pre-Covid levels in early-CY22E. We estimate Brent at US$60/bbl in FY22E *vs* US$45/bbl in FY21E to drive 131% YoY rise in OIL's FY22E EPS. **Upside to FY22E EPS would be 11% if Brent is at US$65/bbl in FY22E.**
- **Stake hike in NRL to be earnings-accretive by Rs7.9bn**: OIL is set to raise its stake in NRL from 26% to 69.6-83.3% (69.6% assumed in the base case) for a consideration of Rs70bn-92bn. NRL is allowed to keep 50% of the excise duty it collects from consumers, which boosts its profit. Boost to NRL's FY22E GRM even

if excise is cut by Rs5/l is US$27.5/bbl (base case) and US$32.5/bbl if excise is not cut. OIL's share of NRL's profit, net of rise in interest cost due to debt raised to fund stake rise, is set to increase by Rs7.9bn (94%) YoY in the base case, by Rs11.9bn (143%) YoY if excise is not cut, and by Rs10.1bn-15bn (121-179%) YoY if stake is hiked to 83.3%. We estimate that OIL increasing its stake in NRL would not be earnings-accretive only if NRL's GRM is US$21.15/bbl or lower in FY22E. Excise benefit would boost NRL's GRM by US$21.15/bbl or more as long as excise duty cut is not more than Rs11.2/l. We do not expect excise duty cut of more than Rs8.5/l as a bigger cut would mean GoI is unable to meet its excise duty Budget target in FY22E.

Table 3: OIL's stake hike to boost FY22E profit by Rs7.9bn-15bn YoY

(Rs-bn)	FY22E	FY21E	YoY rise in profit	
OIL's share of profit net of interest cost				
At 69.6% stake if excise cut by Rs5/l	16.3	8.4	**7.9**	**94%**
At 83.3% stake if excise cut by Rs5/l	18.5	8.4	**10.1**	**121%**
At 69.6% stake if excise not cut	20.3	8.4	**11.9**	**143%**
At 83.3% stake if excise not cut	23.3	8.4	**15.0**	**179%**

Source: Company data, I-Sec research

- **Gas price to be up 8% YoY in FY22E, but formula change could bring bigger gains:** As per the prevailing formula, gas price plunged to a low of US$2/mmbtu in H2FY21 and we estimate it to be up just 8% YoY at US$2.5/mmbtu in FY22E. A committee appointed to review the formula, as gas prices have been consistently below cost for domestic producers, **may have proposed a floor price; if set at US$3-4/mmbtu, it would boost FY22E EPS by 3-10%.** A final decision on whether to change the gas pricing formula, which would boost realisation of nomination acreage producers like OIL, is likely to be left to the finance ministry. The ministry may favour a formula change if GoI is a net gainer from a higher domestic price for gas. Our calculations suggest that rise in domestic gas price by US$1/mmbtu would lead to net rise in GoI's revenue by Rs11.2bn. **In the medium term, deregulation of gas price for existing production is also not ruled out as GoI has often talked of eventually moving to uniform deregulated price of gas.** All production from new discoveries would in any case be entitled to pricing and marketing freedom.

Table 4: Net rise in GoI revenue at Rs11.2bn on gas price rise by US$1/mmbtu

Rise in GoI revenue (Rs-bn) from	
Royalty on gas	6.1
Income tax revenue	12.6
GoI's share of dividend	9.0
Tax paid on dividend by other investors	0.6
Total	**28.3**
Rise in GoI subsidy due to gas price rise	17.1
Net rise in GoI revenue	**11.2**

Source: Company data, I-Sec research

Share price reflects LT Brent of US$48/bbl; upsides to fair value

OIL's current share price reflects long-term Brent of just US$48/bbl and OIL's realisation of just US$47/bbl *vs* current Brent price of over US$69/bbl and our long-term Brent estimate of US$60/bbl. Upside to fair value would be:

- Rs29/share (14%) if long-term gas price is at US$5/mmbtu *vs* US$4/mmbtu assumed by us

- Rs25/share (12%) if OIL's stake in NRL is valued at 4x FY22E EV/EBITDA *vs* 3x in the base case

Risks

The following are the main risks to our **BUY** rating and investment thesis:

- **NRL stops getting excise benefit leading to plunge in GRM:** NRL's core GRM has been at US$8-11.8/bbl in FY15-FY20 and was at just US$1.44/bbl in 9MFY21. Its reported GRM has been very high at US$16.7-33.3/bbl in FY15-9MFY21 mainly due to excise benefit – and if this benefit is withdrawn its GRM would sharply decline and so would profitability. At GRM of US$5/bbl, NRL's FY22E EBITDA would be in the red and at US$10/bbl it would be 82% lower than base case at Rs6.9bn. We are valuing stake in NRL at 3x FY22E EV/EBiTDA; <u>on that basis OIL's fair value (FV) would be just Rs109-127/share (18-4% downside) if NRL's GRM is at US$5-10/bbl. Even if valued at 6x FY22E EV/EBITDA with NRL's GRM being at US$10/bbl, OIL's FV would be Rs140/share (6% upside).</u> <u>**This scenario of excise benefit for NRL being withdrawn appears very unlikely. GoI has in fact extended excise benefit for production from NRL's proposed 6mmtpa expansion.**</u>
- **Oil price is substantially lower than our estimates and view on long-term oil price changes for the worse:** If long-term Brent price is estimated at US$50/bbl, FV works out to Rs145/share (10% upside) while if it is estimated at US$45/bbl, FV works out to Rs114/share (14% downside).
- **Long-term gas price is very low at ~US$2/mmbtu:** If we assume LT gas price at US$2/mmbtu instead of US$4/mmbtu in the base case, it would mean FV is lower at Rs147/share (10% upside). This scenario appears very unlikely.

OPEC+ capping supply drives oil price recovery

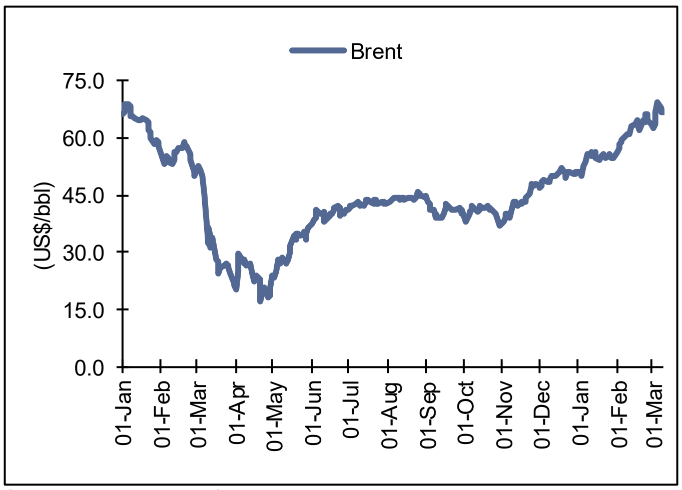
OPEC+ caps supply until demand recovers to ensure deficit

Brent up 88% from lows on vaccines and OPEC+ capping supply

Brent recovered sharply from the lows in Apr'20 to US$45.6/bbl on 25-Aug'20 driven by recovery in global demand and OPEC+ output cuts from May'20. However, seasonally weak demand in Sep-Oct, second Covid wave in the US and Europe, and rise in Libyan oil output led to Brent correcting to a low of US$36.9/bbl on 30-Oct'20. However, Brent is up 88% from end-Oct'20 lows to US$69.3/bbl and WTI up 84% on 12-Mar'21 driven by:

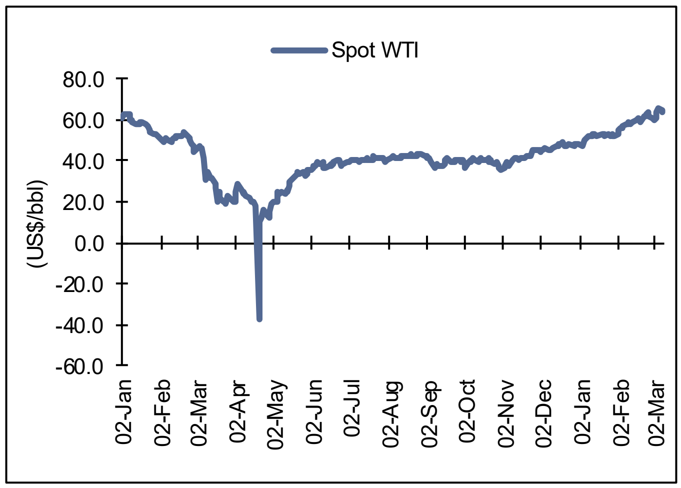
- Announcements of high efficacy vaccines against Covid in Nov'20 and gradual rollout of vaccination programme globally thereafter
- OPEC+ capping supply to ensure supply deficit when second wave of Covid in the US and Europe caused reversal of demand recovery

Chart 1: Brent surged to US$69.3/bbl on 12-Mar'21 from low of US$36.9/bbl on 30-Oct'20



Source: Bloomberg, I-Sec research

Chart 2: WTI recovered to over US$66/bbl on 12-Mar'21 from low of US$35.8/bbl on 30-Oct'20



Source: Bloomberg, I-Sec research

OPEC+ decides to rollover supply in Apr'21; 2 members to hike output

At OPEC+ 4-Mar'21 meeting, it was decided to:

- Rollover output for all members in Apr'21 except Russia and Kazakhstan, who have been allowed to boost output by 120k b/d and 30k b/d, respectively.
- Saudi Arabia will continue its 1m b/d additional output cut in Apr'21, which will be gradually pruned from May'21. Saudi Arabia had, in the Jan'21 OPEC+ meeting, announced an additional voluntary output cut of 1m b/d in Feb-Mar'21.

OPEC+ output cuts 9.7m b/d in May-Jun and 5.8m b/d in CY21 as per deal

As per the Apr'20 output cut deal, OPEC+ output cuts were:

- 9.7m b/d in May-Jun'20
- 7.7m b/d in H2CY20
- 5.8m b/d in CY21

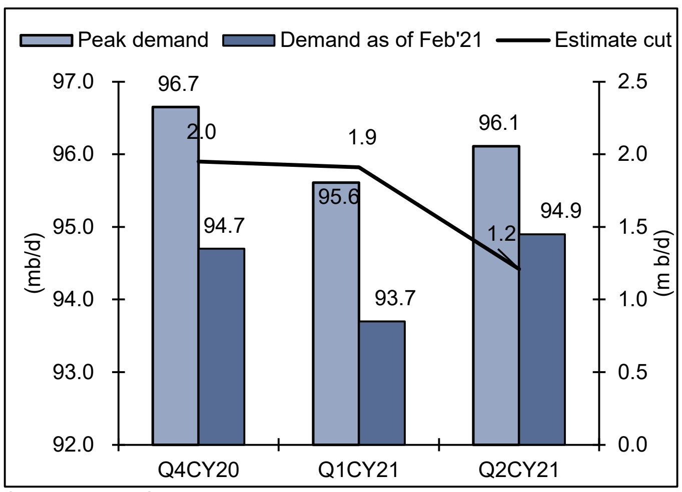
OPEC+ delayed pruning of cuts in face of demand recovery slowing

OPEC+ has on multiple occasions delayed pruning of output cuts *vs* the Apr'20 deal while Saudi Arabia and some of its OPEC allies have done extra cuts as follows:

- Saudi Arabia, UAE, Kuwait and Oman voluntarily cut output by an extra 1.2m b/d in Jun'21.
- OPEC+ delayed pruning of output cuts from 9.7m b/d to 7.7m b/d to Aug'20 *vs* Jul'20 as per the Apr'20 deal.
- OPEC+ decided to prune output cuts from 7.7m b/d in Dec'20 to just 7.2m b/d in Jan'21 *vs* 5.8m b/d from Jan'21 as per the Apr'20 deal.
- OPEC+ decided to rollover production cuts in Feb'21 except for Russia and Kazakhstan, who were allowed to boost output by 75k b/d in Feb'21 and another 75k b/d in Mar'21. Saudi Arabia decided to cut an additional 1m b/d in Feb-Mar'21.
- OPEC+ decided to rollover production cuts in Apr'21 except for Russia and Kazakhstan, who were allowed to boost output by 150k b/d. Saudi Arabia decided to continue with additional 1m b/d output cut in Apr'21.

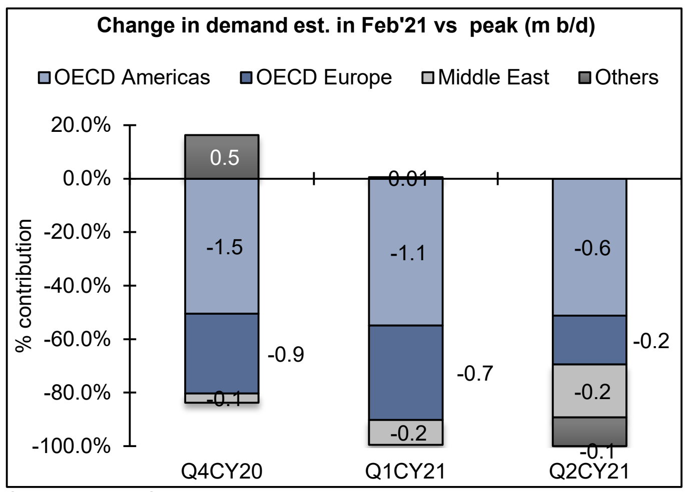
OPEC+ delayed output cuts pruning in CY21-TD as second wave of Covid hit US and European demand.

Chart 3: IEA had to cut global oil demand estimate for Q4CY20, Q1CY21 & Q2CY21 by 2-1.2mn b/d from peak



Source: IEA, I-Sec research

Chart 4: OECD Americas & Europe account for most of Q4CY20-Q2CY21 demand cut from peak



Source: IEA, I-Sec research

Q4CY20-Q2CY21E demand estimates cut by 2.0-1.2m b/d from peak

Second wave of Covid caused reversal of demand recovery in the US and Europe. This led to cuts in IEA's estimates of global oil demand by:

- 2.0m b/d for Q4CY20 from 96.7m b/d in Aug'20 to 94.7m b/d in Feb'21. IEA has cut demand estimate for OECD Americas by 1.5m b/d and for OECD Europe by 0.9m b/d from peak.
- 1.9m b/d for Q1CY21 from 95.6m b/d in Sep-Oct'20 to 93.7m b/d in Feb'21. IEA has cut demand estimate for OECD Americas by 1.1m b/d and for OECD Europe by 0.7m b/d from peak.

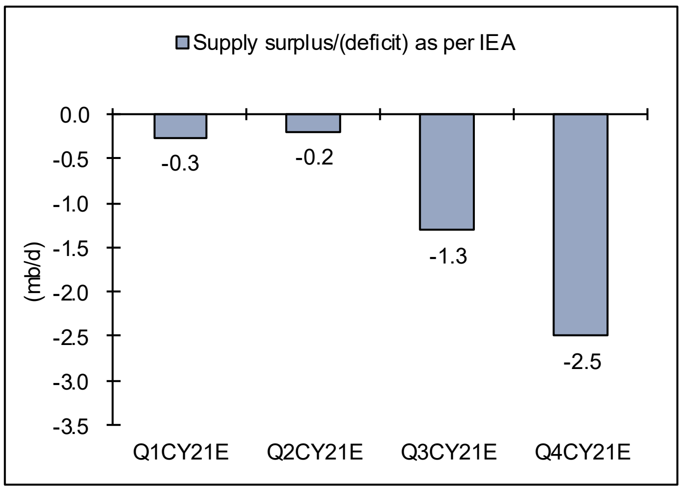
- 1.2m b/d for Q2CY21 from 96.1m b/d in Oct'20 to 94.9m b/d in Feb'21. IEA has cut demand estimate for OECD Americas by 0.6m b/d and for OECD Europe by 0.2m b/d from peak.

OPEC+ capping supply to ensure deficit of 0.2m-0.7m b/d in Q2CY21E

We estimate OPEC+ output cuts at 8.2m b/d in Apr'21 and, as Saudi Arabia unwinds its extra output cut, 7.2-8.2m b/d in May-Jun'21. We estimate OPEC+ output cuts at 7.9-7.7m b/d in Q1-Q2CY2E *vs* output cut of 5.8m b/d in CY21 as per Apr'20 OPEC+ deal. OPEC+ has thus been capping supply until demand recovers adequately to ensure global supply deficit and keep oil price high. As vaccine rollout drives demand recovery probably in H2CY21E, OPEC+ may eventually be able to prune output cuts to 5.8m b/d and still ensure large supply deficit. We estimate supply deficit of:

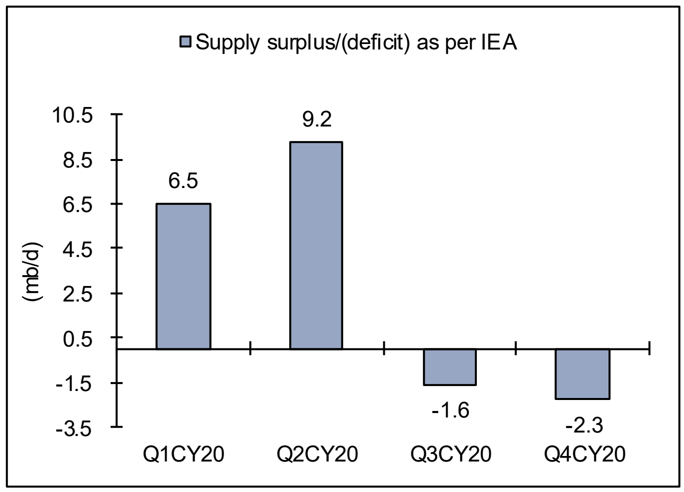
- 0.26m b/d in Q1CY21E assuming OPEC+ output cut at 7.9m b/d
- 0.2m b/d in Q2CY21E assuming OPEC+ output cut at 7.7m b/d
- 1.3m b/d in Q3CY21E assuming OPEC+ output cut at 5.8m b/d
- 2.5m b/d in Q4CY21E assuming OPEC+ output cut at 5.8m b/d

Chart 5: Global oil supply deficit estimated at 0.2-2.5m b/d in Q1-Q4CY21E



Source: IEA, I-Sec research

Chart 6: Global oil supply surplus of 6.5-9.2m b/d in Q1-Q2CY20; deficit of 1.6-2.3m b/d in Q3-Q4CY20

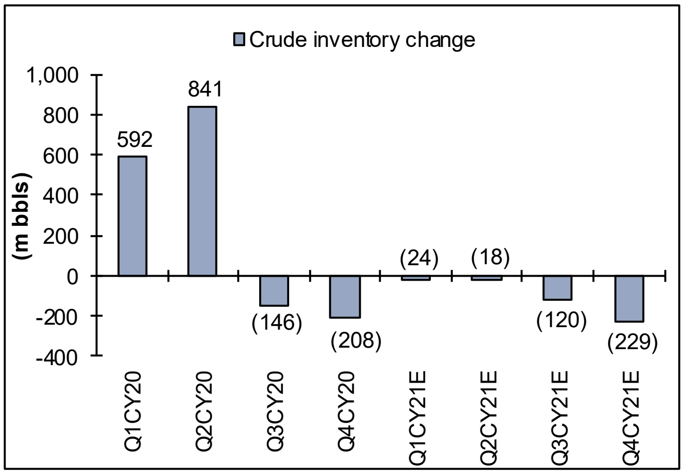


Source: IEA, I-Sec research

Supply deficit since Q3CY20 to help draw down inventory surge in H1

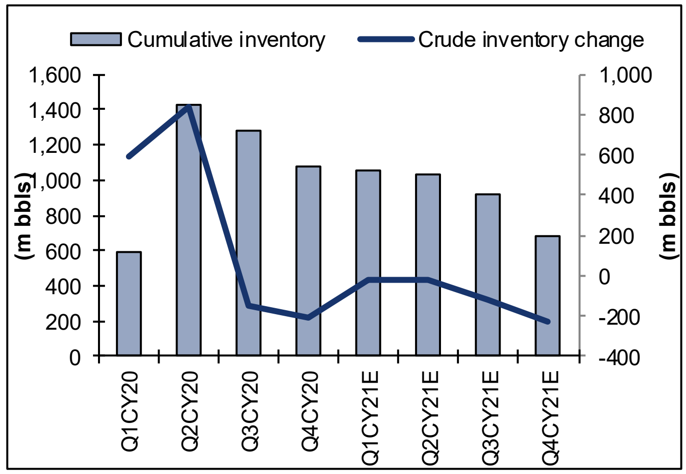
Lockdown of large part of the world's population due to Covid led to decline in global oil demand by 5.4m b/d and 16.5m b/d in Q1 and Q2CY20 respectively. Supply response was slow as gravity of the situation was not realised. OPEC+ struck a deal to cut output only in Apr'20 and supply cuts started only from May'20. This meant global oil supply surplus at 6.5m b/d and 9.2m b/d in Q1-Q2CY20 respectively as per IEA. Thus, global oil inventory rose by 1.43bn bbls in H1CY20. By end-CY20, only 25% of this crude inventory rise was whittled down. As per our supply deficit estimates based on IEA's data, crude inventory build-up in Jun'20 would be whittled down by just 28% by end-Jun'21 and by 52% by end-Dec'21. Thus, global crude inventory is unlikely to decline to Dec'19 levels even by Apr'22 when the OPEC+ output cut deal ends.

Chart 7: Global oil inventory up in H1CY20 by 1.43bn bbls; down 354m bbls in H2 & 391m bbls in CY21E



Source: IEA, I-Sec research

Chart 8: 25% of crude inventory rise was whittled down by end-CY20; would be down 52% by end-Dec



Source: IEA, I-Sec research

Global demand up 5.4m b/d & deficit of 1.1m b/d in CY21E as per IEA

IEA estimates global oil demand declined by 9m b/d YoY to 91m b/d in CY20 with demand bottoming out at 82.9m b/d in Q2 and peaking at 94.7m b/d in Q4, as per Feb'21 Oil Market Report (OMR). IEA estimates oil demand to rise by 5.4m b/d YoY to 96.4m b/d in CY21E with demand being the lowest at 93.7m b/d in Q1 and peaking at 99.2m b/d in Q4CY21. Thus, IEA estimates that, as vaccines are rolled out globally, demand would recover by:

- 3m b/d QoQ to 97.9m b/d in Q3CY21E
- Another 1.3m b/d QoQ to 99.2m b/d in Q4 and would be almost back to pre-Covid level of 100.05m b/d in CY19

On a quarterly basis, pre-Covid demand was 100.88m b/d in Q4CY19. Global demand may recover to that level only sometime in CY22E.

Table 5: Global oil supply deficit in CY21 estimated at 1.1m b/d *vs* 0.5-3.0m b/d surplus in CY19-CY20

m b/d	CY19	CY20	CY21E
Non-OPEC	65.6	63.1	64.0
OPEC	34.9	30.9	31.3
Global supply	**100.6**	**94.0**	**95.4**
Global demand	**100.0**	**91.0**	**96.4**
Supply surplus/(deficit)	**0.5**	**3.0**	**(1.1)**
YoY change			
Non-OPEC		(2.6)	1.0
OPEC		(4.0)	0.4
Global supply		**(6.6)**	**1.4**
Global demand		**(9.0)**	**5.4**

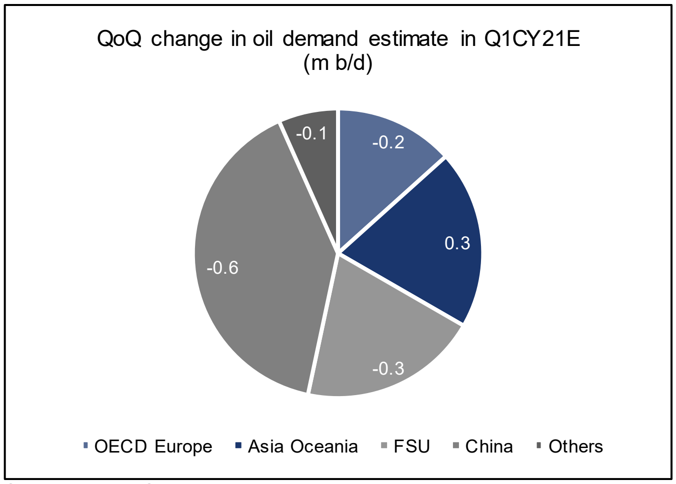
Source: IEA, I-Sec research

Second wave of Covid hit demand in Q1CY21E

Global demand estimated to be down 1m b/d QoQ in Q1CY21E

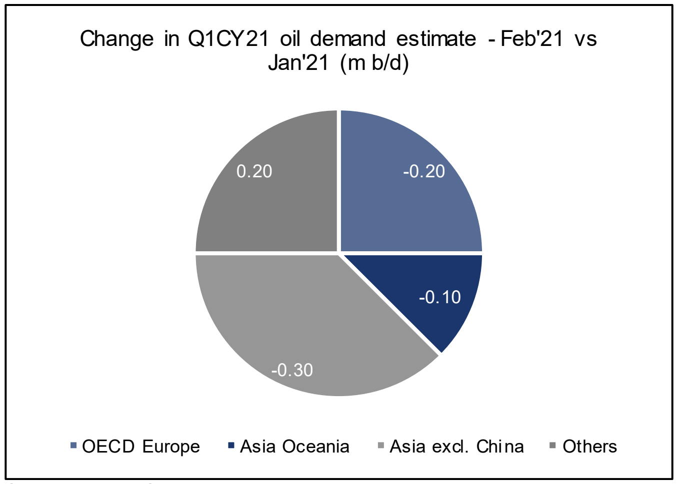
The initial surge in oil price was partly driven by hope of vaccine rollout boosting global oil demand. However, second wave of Covid hit oil demand, especially severely in Europe, as a result of which global demand is estimated to be down 1m b/d QoQ in Q1CY21E with Europe accounting for 0.2m b/d of the fall.

Chart 9: Global demand to be down 1m b/d QoQ in Q1CY21E as per IEA; Europe down 0.2m b/d



Source: IEA, I-Sec research

Chart 10: IEA cuts demand estimate by 0.4m b/d in Feb *vs* Jan'21 estimate; Europe cut by 0.2m b/d



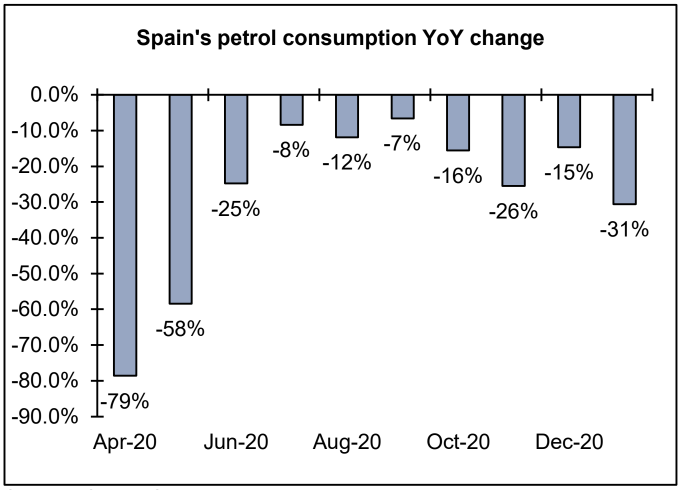
Source: IEA, I-Sec research

Petrol demand down 31-33% YoY in Jan'21 in Spain, Italy & Portugal

Petrol consumption recovered and was down just 7% YoY in Sep'20 (8-79% YoY fall in Apr-Aug'20) in Spain. In Italy (down 5-73% YoY in Apr-Aug'20) and Portugal (down 9-61% YoY), petrol consumption recovered by 1-3% YoY in Sep'20. However, demand recovery reversed in Oct-Dec'20 and was down 15-26% YoY in Spain, 7-17% in Portugal and 13-28% in Italy. Demand decline was steeper (steepest since May'20) in Jan'21 at:

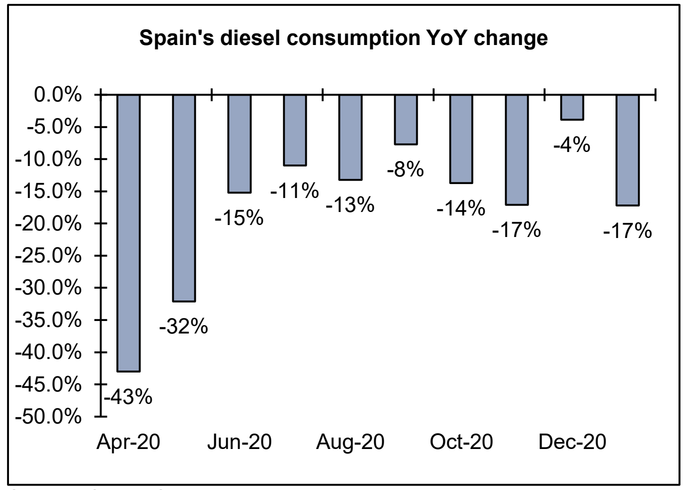
- 31% YoY in Spain
- 32% YoY in Italy
- 33% YoY in Portugal

Chart 11: Spain's petrol consumption down 31% YoY in Jan'21; worst fall since May



Source: CLH, I-Sec research

Chart 12: Spain's diesel consumption down 17% YoY in Jan'21; worst fall since May

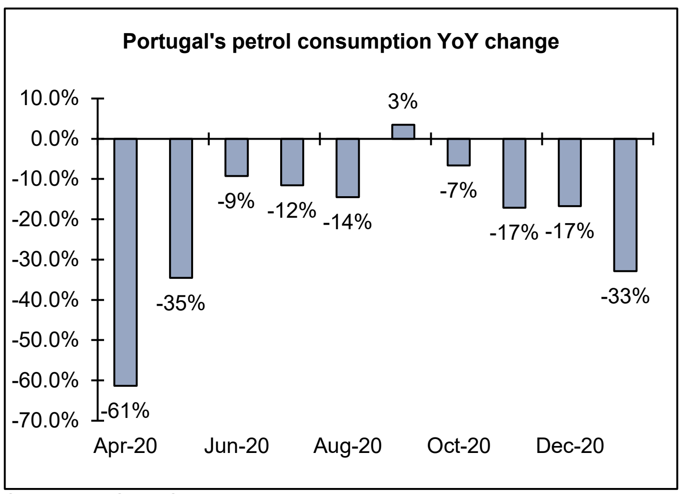


Source: CLH, I-Sec research

Diesel demand down 17-21% YoY in Jan'21 in Spain, Italy & Portugal

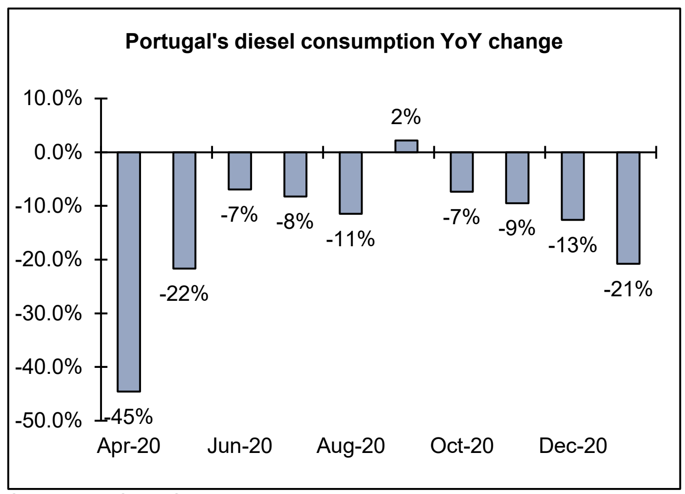
Diesel consumption recovered and was down just 4% YoY in Dec'20 (8-43% YoY fall in Apr-Nov'20) in Spain.

Chart 13: Portugal's petrol consumption down 33% YoY in Jan'21; worst fall since May



Source: ENSE, I-Sec research

Chart 14: Portugal's diesel consumption down 21% YoY in Jan'21; worst fall since May

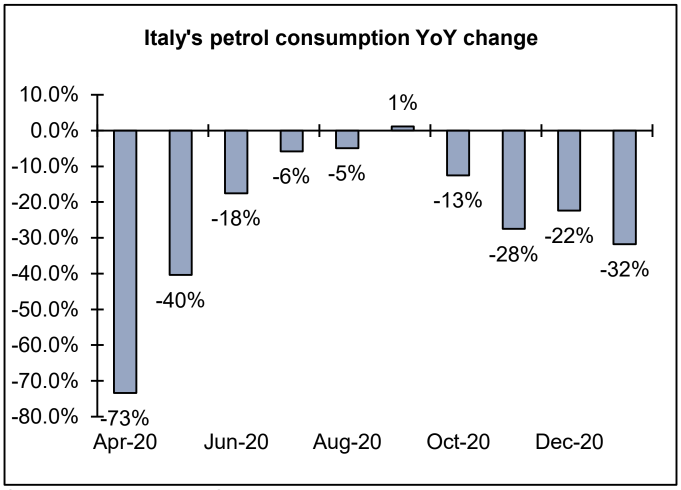


Source: ENSE, I-Sec research

Diesel consumption recovered to be down just 0.4% YoY in Italy (down 6-50% YoY in Apr-Aug'20) in Sep'20 and in Portugal (down 7-45% YoY in Apr-Aug'20) to be up 2% YoY in Sep'20. However, demand recovery reversed in Oct-Dec'20 to be 7-13% in Portugal and 11-12% in Italy. Demand decline was steeper (steepest since May'20) in Jan'21 at:

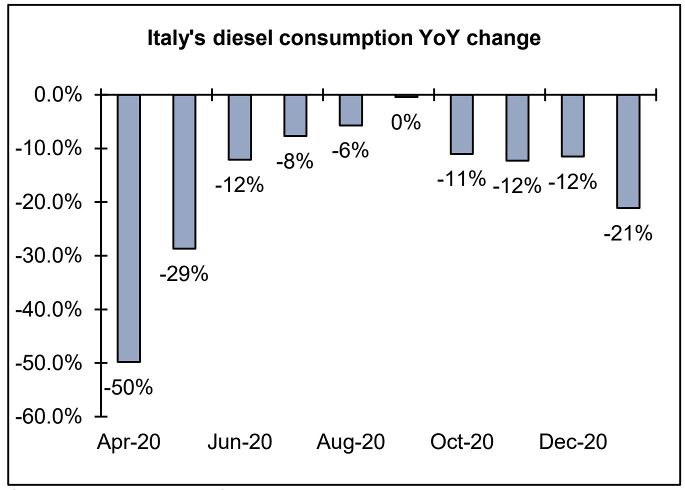
- 17.2% YoY in Spain
- 21% YoY in Italy
- 21% YoY in Portugal

Chart 15: Italy's petrol consumption down 32% YoY in Jan'21; worst fall since May



Source: MoED Italy, I-Sec research

Chart 16: Italy's diesel consumption down 21% YoY in Jan'21; worst fall since May



Source: MoED Italy, I-Sec research

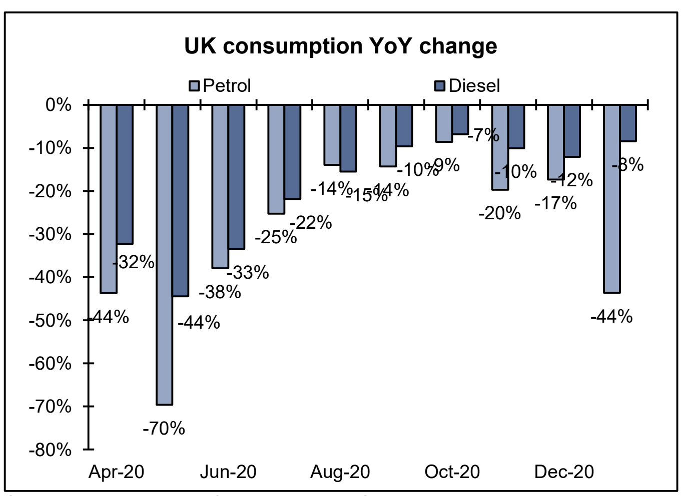
Petrol demand in Germany down 32% YoY in Dec'20

Petrol consumption in Germany was down 32% YoY in Dec'20 *vs* 1-29% YoY fall in Apr-Nov'20. Diesel consumption in Germany was down 7% YoY in Dec'20 *vs* 1-20% YoY decline in Jun-Nov'20 with decline being steepest in Aug'20.

Petrol demand in UK down 44% YoY in Jan'21; fall may be 40% in Feb

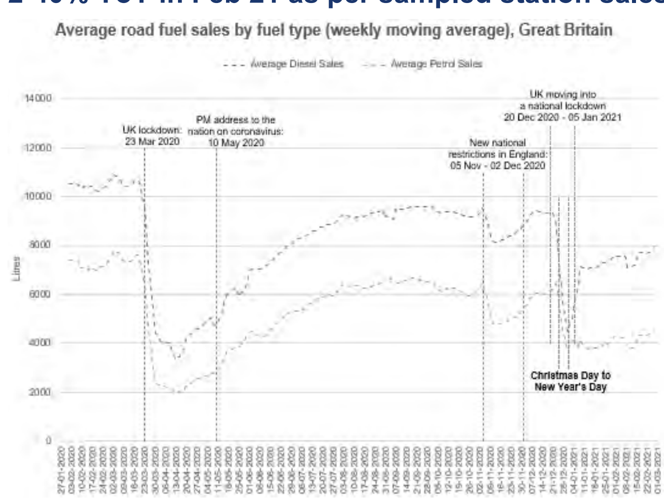
UK diesel consumption was down 8% YoY and petrol consumption down 44% YoY in Jan'21. Second wave of Covid led to imposition of level four lockdown in the UK from 25-Dec'20 to 4-Jan'21 and imposition of nationwide lockdown from 5-Jan'21. Data from UK fuel sales at sampled stations indicate that the fall in demand was much steeper in Jan'21 than in Dec'20, but may have recovered in Feb'21. We estimate diesel and petrol demand decline at 2-40% YoY in Feb'21.

Chart 17: UK diesel and petrol decline at 8-44% YoY in Jan'21



Source: Department of Energy UK, I-Sec research

Chart 18: UK diesel and petrol demand fall may be 2-40% YoY in Feb'21 as per sampled station sales

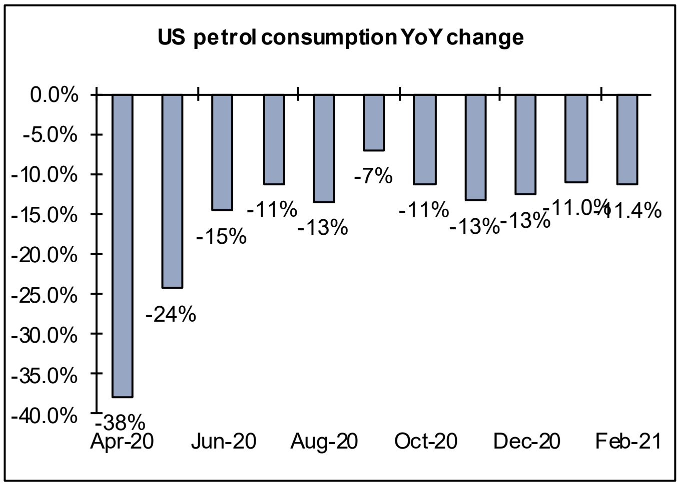


Source: Department of Energy UK, I-Sec research

US auto fuel demand showing signs of recovery

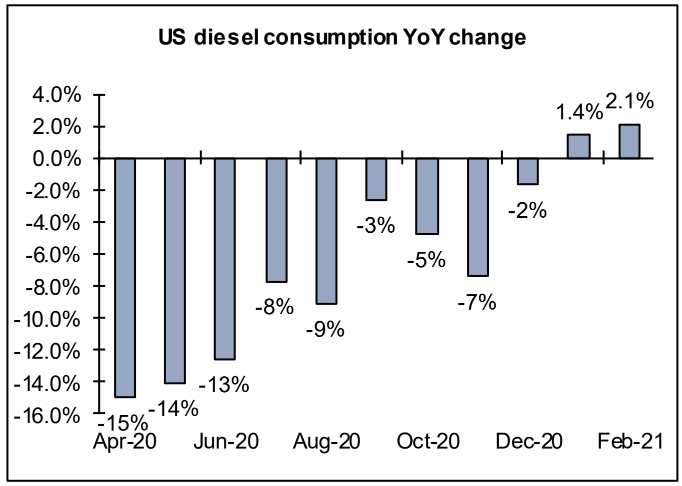
Diesel and petrol consumption in the US had recovered from the lows in Apr'20 with fall being the most modest in Sep'20 at 3-7% YoY. The trend in demand recovery reversed with the fall in petrol demand at 11-13% YoY in Oct-Dec'20 and in diesel demand at 5-7% YoY in Oct-Nov'20. However, the fall in US diesel consumption was most modest at 2% YoY in Dec'20 and consumption is up 1.4-2.1% YoY in Jan-Feb'21. Similarly, the fall in US petrol consumption at 11% YoY in Jan'21 is most modest since Sep'20 suggesting recovery in demand.

Chart 19: US petrol consumption decline at 11-11.4% YoY in Jan-Feb'21



Source: EIA, I-Sec research

Chart 20: US diesel consumption up 1.4-2.1% YoY in Jan-Feb'21



Source: EIA, I-Sec research

Surge in WTI and oil rig count to drive gradual rise in US output

US output bottomed out in May'20; down 2.8m b/d from peak

US oil output plunged by 2m b/d MoM to bottom out at 10.02m b/d in May'20 as Covid-driven lockdown led to a plunge in oil demand and prices. US oil production in May'20 was down by 2.84m b/d from peak of 12.86m b/d in Nov'19.

US shale output bottomed out in Apr'20; down 2.1m b/d from peak

US shale output plunged to 6.17m b/d in Apr'20 from 8.3m b/d in Oct'19. Output from Permian basin, which was 4.22m b/d at peak in Feb'20, declined 0.76m b/d over the next two months to bottom out at 3.46m b/d in Apr'20.

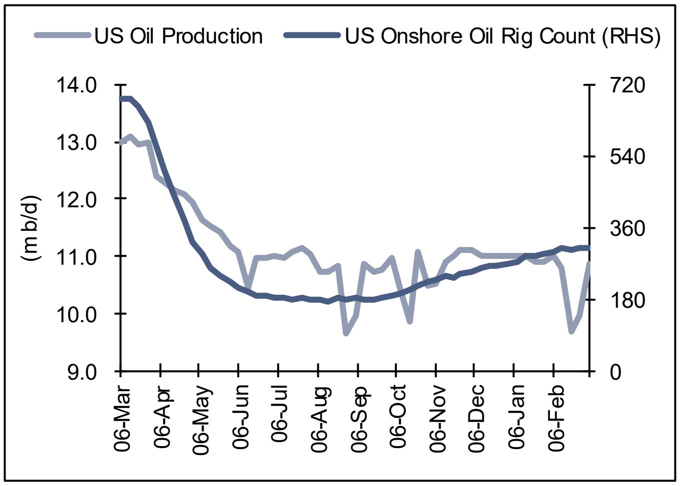
US output up ~1m b/d and shale output up 0.8m b/d from lows

US oil output is up to 11.0m b/d in Dec'20 from low of 10m b/d in May'20. US shale output is up 819k b/d in Dec'20 at 6.99m b/d from low of 6.17m b/d in Apr'20. US oil output declined by 3.8m b/d at peak on 17-Feb due to snowstorms, but has now largely recovered. US shale and total output are still 1.31/1.8m b/d below peak level, respectively.

US oil rig count bottomed out in mid-Aug; 75% below level in Mar'20

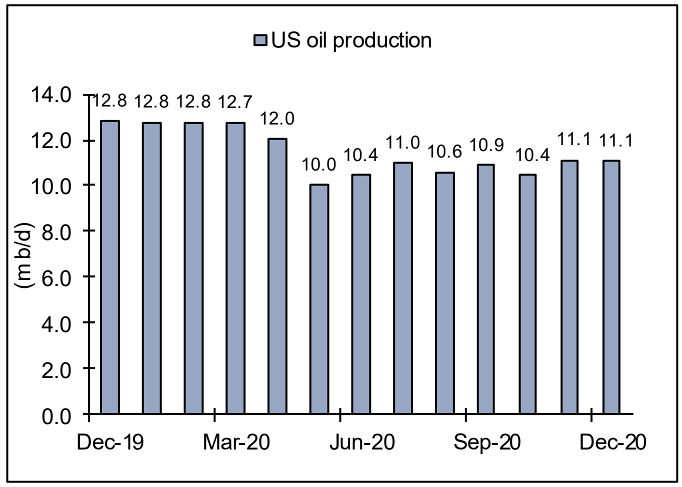
US onshore oil rig count declined 75% (511) from 683 in mid-Mar'20 to 172 in mid-Aug'20 as oil prices were too low to support production increases. With oil prices recovering smartly and WTI rising to over US$40/bbl in Aug'20, US oil rig count started increasing again in Aug'20.

Chart 21: US oil output up ~1m b/d from lows in May'20; US oil rig count up 80% from Aug lows



Source: EIA, Baker Hughes, I-Sec research

Chart 22: US oil production bottomed out in May'20; up ~1m b/d in Dec'20 from lows in May'20



Source: EIA, I-Sec research

Rig count rise by 80% and WTI over US$66/bbl to boost US oil output

US oil rig count, which is a lead indicator of US oil output, is up by 138 (80%) from lows in mid-Aug'20 to 310 in the week ended 5-Mar'21. The rise in rig count and WTI being over US$66/bbl (futures over US$60/bbl until Dec'21 and over US$56/bbl until Dec'22) suggests US oil output would rise. EIA estimates US oil output to rise to 11.54m b/d in Dec'21 (implying rise of 473k b/d from Dec'20 levels), but it estimates average US oil output to be down 1.5% YoY at 11.14m b/d in CY21E.

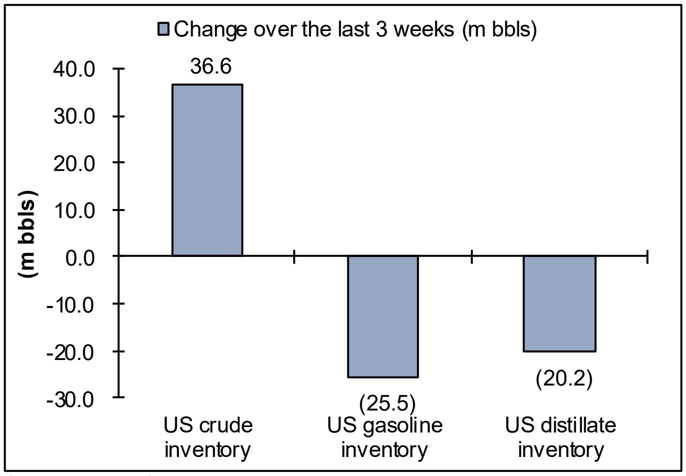
Snowstorms led to surge in US crude inventory; near-term headwind

Two US snowstorms in the week ended 19-Feb'21 led to shutdown of 3.8m b/d of US oil production and 4.4m b/d of refining capacity with another 1.5m b/d capacity being partially impacted. US oil production recovered quickly and was back to pre-snowstorm levels in the week ended 5-Mar'21. However, US refinery utilisation was down to 69% *vs* 83% before the snowstorms and US refinery throughput was 2.5m b/d below pre-snowstorm levels in the week ended 5-Mar'21. This has meant that:

- US crude inventory is up by 36.6m bbls over the last three weeks and from being 1.5% below 5-year average levels pre-snowstorms is now 6.4% above 5-year average levels.
- US distillate and gasoline inventories are down by 20.2-25.5m bbls respectively in the last three weeks and from being 9.8-8.2% above 5-year average levels pre-snowstorms are now 4.2-2.5% below 5-year average levels.

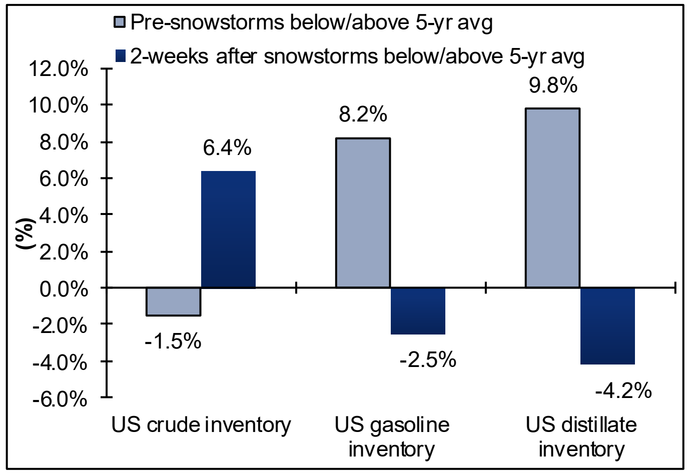
Surge in crude inventory may be a short-term headwind for oil prices, but the plunge in product inventories will help improve refining fundamentals, which augurs well for oil price outlook beyond the near term.

Chart 23: US oil inventory surged, but that of products plunged as oil recovered before refineries



Source: EIA, I-Sec research

Chart 24: Snowstorms dragged US crude stocks above 5-year average & pushed products below



Source: EIA, I-Sec research

US lifting sanctions on Iran risk to oil; demand recovery to help

Iran oil exports down from 2.5m b/d in Mar'18 to 0.13m b/d in Nov'20

Iran's oil exports, which were at 2.5m b/d in Mar'18, have plunged to 0.13m b/d in Nov'20 following sanctions imposed by US in Nov'18 and strictly implemented from May'19. Iran exports stood at 0.6-1.4m b/d during Nov'18 to Apr'19 when waivers were granted to eight countries to gradually reduce imports from Iran. Since May'19, Iran's monthly oil exports have been at 34-484k b/d.

Biden to lift Iran sanctions if Iran strictly complies with nuclear deal

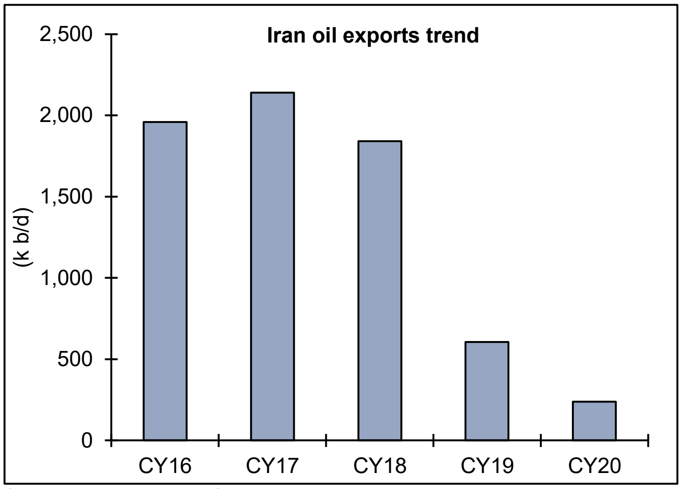
US President Biden has said he would return to the 2015 nuclear deal and lift sanctions if Iran returned to strict compliance with the nuclear deal. Biden's choice for Secretary of State and Director of National Intelligence has indicated that:

- US is a long way from any decision on resuming Iran nuclear deal.
- Iran will have to first start complying with its obligations under the nuclear deal and the Biden administration will have to evaluate and confirm that Iran is complying.
- Biden's ultimate aim would be a deal that limits Iran's missile programme and support for regional proxies, which were the additional demands on Iran from former President Trump.

Iran wants US to lift sanctions; may exit deal in 3 months otherwise

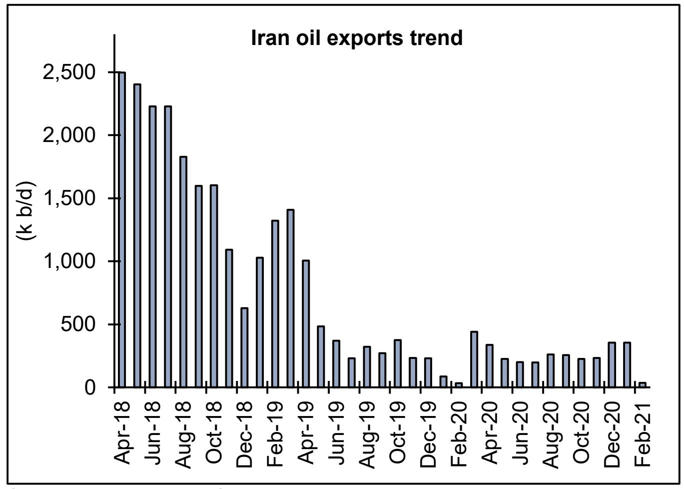
Iran wants US to first lift sanctions before it starts complying with the nuclear deal. Iran has started reducing its compliance under the deal and threatened to exit it if the US does not lift sanctions by 23-May'21. EU allies of US, who were party to the nuclear deal with Iran, are trying to arrange a meeting in which both Iran and the US would be present and steps can be taken to break the deadlock.

Chart 25: Iran exports at 1.8-2.1m b/d in CY16-CY18, plunged to 0.6-0.2m b/d in CY19 and CY20



Source: Bloomberg, I-Sec research

Chart 26: Iran oil exports down from 2.5m b/d in Apr'18 to 0.13m b/d in Nov'20 due to US sanctions



Source: Bloomberg, I-Sec research

Lifting sanctions unlikely if ending support to proxies is a prerequisite

Press reports suggest there was opposition to the Iran nuclear deal from both Republicans and Democrats when it was negotiated in 2015, which prevented it from being ratified by the Senate. Iran has increased its enrichment of uranium to 20%, which is beyond the limit set under the nuclear deal. Whether the Biden administration insists on Iran ending its support for regional proxies (like Hezbollah, Hamas and Houthis) and limiting its missile programme as a prerequisite to lifting sanctions may be key to whether sanctions are lifted. If the Biden administration insists, Iran is unlikely to agree thereby reducing the probability of sanctions being lifted. Iran's President Rouhani being replaced by a hardliner (with ties to Iran's revolutionary guard) after the Jun'21 Presidential election in Iran may also reduce the probability of US lifting sanctions.

Lifting sanctions may boost Iran's supply by 1m b/d by end-CY21E

Lifting of US sanctions on Iran's oil exports could add over 2m b/d to global supply. However, ramp-up of Iran's output would take time and it may add 1m b/d to global oil supply by end-CY21E and ramp-up by 2m b/d appears likely only in CY22E.

Absorbing Iran supply easier if global oil demand is at pre-Covid level

Global oil demand in Q1CY21E is estimated at 93.7m b/d by IEA *vs* peak demand of 100.88m b/d in Q4CY19 and 100m b/d in CY19. IEA estimates global oil demand recovering to 99.2m b/d by Q4CY21E implying recovery by 5.5m b/d from Q1 levels. If oil recovers to pre-Covid levels and rises further, it would be easier to absorb incremental Iran output.

OPEC+ strong resolve to balance oil market continuing key to outlook

OPEC+ has shown strong resolve to cap supply to ensure supply deficit to drain down large crude inventory build-up in H1CY20. Continuance of this strong resolve to balance the global oil market would be crucial to oil price outlook.

Raising stake in NRL to be earnings-accretive

OIL raising stake in NRL to boost share of profit by Rs7.9-15bn

NRL one of the most profitable refineries in India due to excise benefit

OIL currently holds 26% stake in the 3mmtpa Numaligarh Refinery (NRL), which is one of the most profitable refineries in India. One of the main reasons for its high profitability is the 50% excise duty exemption all refineries in the North-East enjoy; North-East refiners are allowed to retain as income 50% of excise duty they collect from consumers. NRL's:

- Gross debt was just Rs738mn and cash was Rs3.78bn, thus its net cash stood at Rs3.04bn in end-Mar'20.
- Net profit was Rs7.2bn-21bn in FY15-FY20 with net profit in FY20 at Rs15.3bn.
- Distillate yield at 82.96%-90.7% in the last five years (82.96% in FY20) is one of the highest among Indian refineries.

OIL to buy 44-57% stake in NRL for Rs70bn-92bn; take it up to 70-83%

OIL, Engineers India (EIL) and government of Assam are set to buy 61.65% stake in NRL **for Rs98.76bn (valued at ~3.6x FY21E EV/EBITDA)** by end-Mar'21. As per press reports:

- EIL would buy 4.37% stake in NRL
- The Assam government may acquire 13.65% stake and thereby raise its stake to 26%
- OIL would buy the remaining stake of 43.63%-57.28% depending on whether the government of Assam decides to buy 13.65% stake or not

Consequently, OIL's stake in NRL, which currently stands at 26%, would increase to 69.6-83.3% at a cost of Rs69.9bn-91.8bn.

OIL's stake hike in NRL to boost FY22E profit by Rs7.9bn-15bn YoY

We estimate that the stake hike in NRL would be earnings-accretive even after factoring-in the rise in interest cost due to the debt raised to acquire the additional stake. We estimate OIL's share of NRL's profit, net of rise in interest cost due to debt raised to fund stake rise, is set to rise by:

- Rs7.9bn (94%) YoY in the base case in which we assume OIL acquires an additional 43.63% and NRL's FY22E GRM is at US$31/bbl and utilisation at 96%. We are assuming excise duty on auto fuels to be cut by Rs5/l and the resultant boost to GRM from it is estimated at US$27.5/bbl and core GRM at US$3.5/bbl.
- Rs11.9bn (143%) YoY assuming NRL's FY22E GRM is at US$36/bbl. In this scenario, it is assumed excise duty on auto fuels is not cut and therefore boosts GRM by US$32.5/bbl and core GRM is at US$3.5/bbl.
- Rs10.1bn (121%) YoY assuming OIL's stake in NRL is hiked to 83.3% and NRL's FY22E GRM is at US$31/bbl.
- Rs15bn (179%) YoY assuming OIL's stake in NRL is hiked to 83.3% and NRL's FY22E GRM is at US$36/bbl.

Table 6: OIL's stake hike to boost FY22E profit by Rs7.9bn-15bn YoY

(Rs-bn)	FY22E	FY21E	YoY rise in profit	
OIL's share of profit net of interest cost				
At 69.6% stake if excise cut by Rs5/l	16.3	8.4	**7.9**	**94%**
At 83.3% stake if excise cut by Rs5/l	18.5	8.4	**10.1**	**121%**
At 69.6% stake if excise not cut	20.3	8.4	**11.9**	**143%**
At 83.3% stake if excise not cut	23.3	8.4	**15.0**	**179%**

Source: Company data, I-Sec research

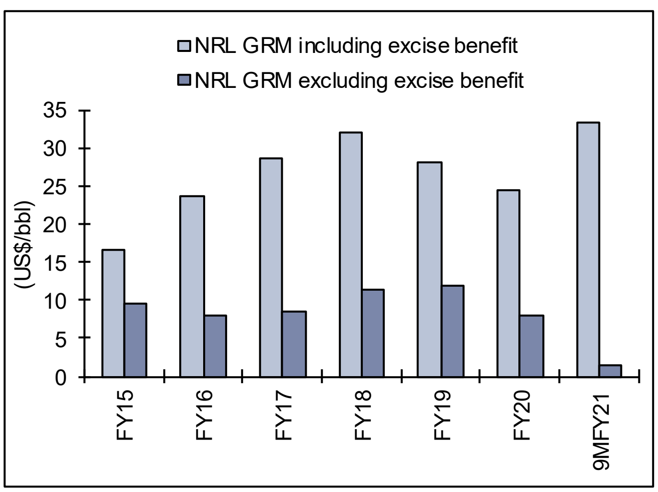
OIL's borrowing & cost of borrowing may be lower than our estimate

Our calculation of the deal to raise stake in NRL being earnings-accretive for OIL is based on the assumption that it is funded entirely by debt and cost of borrowing is 7%. However, the company has indicated that it may use its cash and cash equivalent of Rs35bn to partly fund the acquisition cost and its cost of borrowing may be just 4.0-4.5%. Thus, rise in OIL's interest cost may be lower than our estimate and YoY rise in its share of NRL's profit net of rise in interest cost may be steeper than our estimate. **In this scenario, YoY rise in OIL's share of profit in NRL would be up by Rs10bn-18.7bn (119-223%) YoY.**

NRL stake rise not earnings-accretive only if GRM US$21/bbl or lower

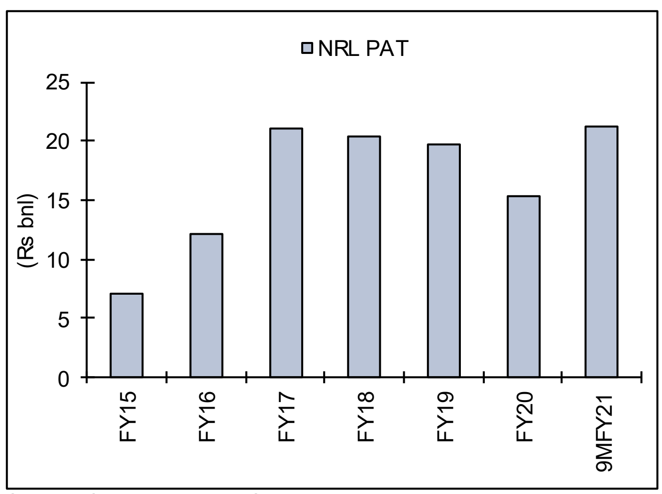
We estimate that OIL increasing its stake in NRL would not be earnings-accretive only if NRL's GRM is US$21.15/bbl or lower in FY22E. **Excise benefit would boost NRL's GRM by US$21.15/bbl or more as long as excise duty cut is not more than Rs11.2/l. We do not expect excise duty cut of more than Rs8.5/l as a bigger cut would mean GoI is unable to meet its excise duty Budget target in FY22E.** Raising stake would be earnings-accretive in a scenario where NRL's stake rises to 83.3% only if GRM is lower than US$20.5/bbl.

Chart 27: NRL's GRM US$8-11.8/bbl excluding, & US$16.7-32.9/bbl including excise gain in FY15-20



Source: Company data, I-Sec research

Chart 28: NRL's net profit Rs7.2bn-21.0bn in FY15-FY20; Rs21.3bn in 9MFY21 as GRM at US$33.3/bbl



Source: Company data, I-Sec research

Core GRM US$8.0-11.8/bbl & excise gain US$7.2-20.5/bbl in FY15-20

NRL's:

- GRM including excise duty benefit was US$16.7-32.9/bbl in FY15-FY20 with GRM being US$24.5/bbl in FY20.

- GRM excluding excise duty benefit (core GRM) was US$8.0-11.8/bbl in FY15-FY20 with GRM being US$8.0/bbl in FY20.
- Boost to GRM due to excise duty was US$7.2-20.5/bbl in FY15-FY20 with boost to GRM being US$16.5/bbl in FY20.

Excise rise boosted 9MFY21 GRM to record; core GRM just US$1.4/bbl

Hike in excise duty on auto fuels by Rs3/l in Mar'20 and Rs10-13/l in May'20 meant NRL's:

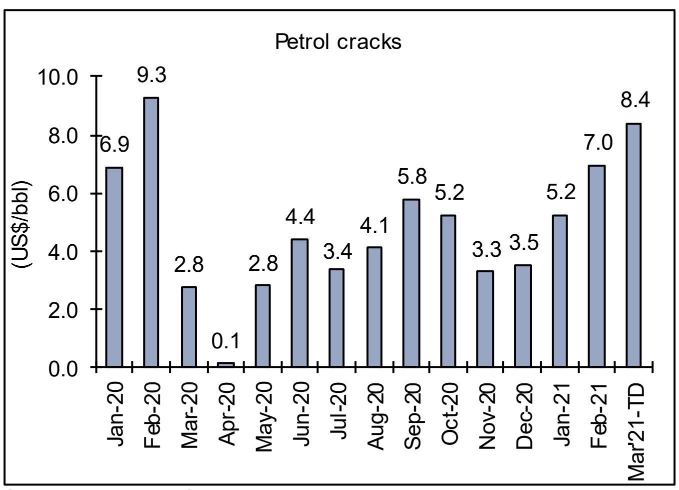
- GRM including excise benefit was at a record US$33.3/bbl in 9MFY21.
- GRM including excise benefit was US$37-38/bbl in Q2-Q3FY21 when its utilisation recovered to 86-96% and it got benefit of hike in excise duty on auto fuels by Rs13.1-16/l spread over Mar'20 and May'20.
- NRL's boost to GRM due to excise duty was at a record US$31.9/bbl in 9MFY21.
- Net profit was at a record Rs21.3bn in 9MFY21.

However, NRL's core GRM was very weak and at a record low of US$1.44/bbl in 9MFY21 due to record weakness in product cracks as plunge in demand due to Covid meant global refinery utilisation was at 38-year low in CY20.

Core GRM to recover to US$3.5/bbl, but excise cut assumed in FY22E

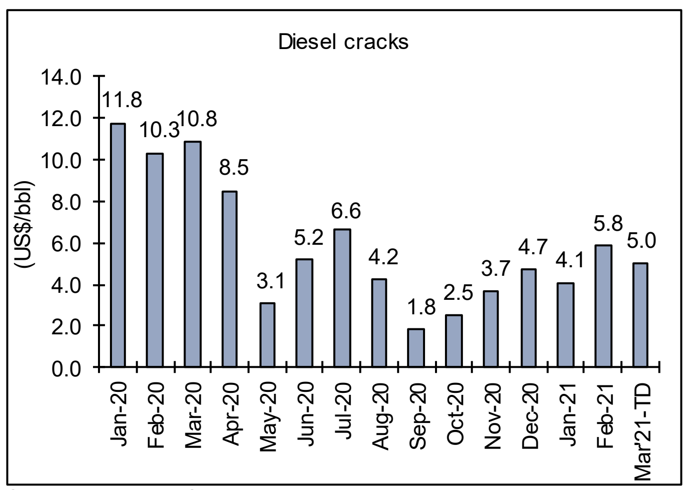
We are assuming cut in excise duty in FY22E by Rs5/l, which would mean boost to GRM from excise duty would be US$27.5/bbl *vs* US$32.5/bbl if there is no excise cut. However, we are assuming recovery in core GRM to US$3.5/bbl *vs* US$1.44/bbl in 9MFY21.

Chart 29: Petrol cracks at 12-month high of US$7/bbl in Feb'21; at 13-month high in Mar-TD



Source: Reuters, I-Sec research

Chart 30: Diesel cracks at 7-month high of US$5.8/bbl in Feb'21; down MoM in Mar-TD



Source: Reuters, I-Sec research

Recent product cracks recovery suggests core GRM rise imminent

Petrol and diesel account for 21-74% respectively and auto fuels over 95% of NRL's product slate. Petrol and diesel cracks have recovered as follows:

- Petrol cracks were at 12-month high of US$7/bbl in Feb'21 and at 13-month high of US$8.4/bbl in Mar'21-TD *vs* just US$3.6/bbl in 9MFY21.
- Diesel cracks were at 7-month high of US$5.8/bbl in Feb'21, but are down to US$5.0/bbl in Mar'21-TD *vs* US$4.5/bbl in 9MFY21.

Product cracks recovery should strengthen further as rollout of vaccines boosts global demand to pre-Covid levels by end-FY22. Thus, a recovery in core GRM appears imminent.

NRL capacity being expanded to 9mmtpa at cost of Rs226bn

NRL is expanding its capacity from existing 3mmtpa to 9mmtpa at a cost of Rs226bn. The project includes a 1,398-km crude oil pipeline with 9mmtpa capacity from Paradip to Numaligarh and a 654-km product pipeline with 6mmtpa capacity from Numaligarh to Siliguri. The project is to be completed within 48 months after all approvals and clearances are received. Project is to be funded by equity of Rs23.07bn from the promoters, debt of Rs151bn, viability gap funding of Rs10.2bn from government of India (GoI) and balance from internal accruals. **Incremental production from the expansion, which would be sold in India, would also be entitled to excise duty benefit.** Some of the production from the expansion is likely to be exported to Bangladesh.

OIL's gas pricing formula may change for the better

All incremental gas output deregulated; OIL's output regulated

All incremental gas entitled to pricing & marketing freedom

GoI has allowed pricing and marketing freedom for all incremental gas that would be produced in India as follows:

- Gas produced from deepwater and high-pressure high-temperature fields after Jan'16 was given pricing and marketing freedom in Mar'16, but pricing is subject a ceiling linked to prices of alternate fuels.
- Coal bed methane (CBM) was given pricing and marketing freedom in Apr'17.
- Gas output from new fields in the North-East that commenced after 1-Jul'18 was given pricing and marketing freedom in Aug'18.
- Gas output from any discoveries whose field development plan (FDP) was approved after Feb'19 was given pricing and marketing freedom in Feb'19.

Table 7: India gas price history

Year	Event
Pre 1997	Cost plus pricing
1997-Jun'05	Linked to fuel oil subject to a ceiling of Rs2,850/mscm (US$1.85/mmbtu)
Jul'05	Gas price raised to Rs3,200/mscm (US$2.0/mmbtu)
Jun'10	Gas price raised to US$4.2/mmbtu
Jun'13	CCEA approves gas price as proposed by Rangarajan Committee from Apr'14
Jan'14	Gas price hike notified
Mar'14	UPA government seeks Election Commission approval for gas price hike; EC asks deferral until the end of the elections
25-Jun-14	NDA government defers gas price hike by three months
24-Sep-14	Defers decision until 15 Nov'14
18-Oct-14	Gas price linked to price of gas in US, UK, Russia and Canada w.e.f. 1st Nov'14; works out to US$5.61/mmbtu on NCV basis for 1st Nov'14 to Mar'15
21-Mar-16	Price of gas produced post-Jan'16 from 'ultra deepwater' / deepwater / high pressure - high temperature areas made market-determined, but subject to ceiling linked to price of alternate fuels
01-Apr-16	Gas price as per formula falls to US$3.4/mmbtu in H1FY17
11-Apr-17	Market-determined price for coal bed methane announced
14-Aug-18	Pricing and marketing freedom announced for gas production in North-East India, which commenced after 1st Jul'18
21-Feb-19	Marketing and pricing freedom announced for gas produced from discoveries whose field development plan (FDP) was approved after Feb'19
Aug'20	Committee set up to review and suggest modifications to prevailing gas pricing formula
07-Oct-20	GoI-approved procedure to be followed to ensure truly market-determined price for gas entitled to pricing and marketing freedom. Until now, price of such gas was discovered by the producer and in many cases an effective floor price was set, whereby the price discovered was not truly market-determined.

Source: PIB, PPAC, I-Sec research

OIL's gas output is not entitled to pricing and marketing freedom as it is legacy production from the nomination acreage and is therefore regulated.

Prevailing formula needs to be revised as price lower than cost

OIL's domestic gas output regulated; US$2-4.1/bbl since Apr'16

Price of OIL's gas output was US$4.2/mmbtu from Jun'10 to Oct'14 as it was brought in line with the price of gas from KG-D6 NELP block. Price of nomination acreage gas and that from KG-D6 was linked to price of gas from the US, UK, Canada and Russia from Nov'14. Price of gas under this formula started at US$5.6/mmbtu, but now is at just US$2/mmbtu. It was US$2-4.1/mmbtu since Apr'16.

Gas price linked to oil price with a cap from Apr'09 for NELP gas

As per terms of PSC for NELP blocks, price of gas produced from these blocks was to be market-determined. The producer was to discover the market-determined price by calling bids from potential consumers, and then get the discovered gas price approved by the government. Gas price discovery process was carried out and the gas pricing formula discovered was sent to the government. The government approved the formula with some modifications. The main modification was that the gas price was linked to Brent price with a cap of US$60/bbl instead of cap of US$65/bbl as per the discovered formula. The gas price as per the approved formula worked out to US$4.2/mmbtu and was to be in place for the first five years of production – from Apr'09 to Mar'14.

US$4.2/mmbtu price applied to nomination gas from Jun'10

Gas price of US$4.2/mmbtu was made applicable to gas produced from nomination acreage by OIL from Jun'10; thus, from Jun'10, gas from NELP and nomination acreage got the same price.

Gas price linked to price in US, UK, Canada & Russia from Nov'14

Price of gas from NELP blocks and nomination acreage was up for revision in Apr'14. However, the pricing decision was delayed, as the election commission did not allow gas pricing approved by the United Progressive Alliance (UPA) government from being implemented in the midst of general elections in Apr'14. After the elections, the new National Democratic Alliance (NDA) government revised the gas pricing formula approved by the UPA government. The new formula so approved was made applicable to all gas from Nov'14 except gas from pre-NELP blocks. Salient features of gas pricing formula approved by the NDA government:

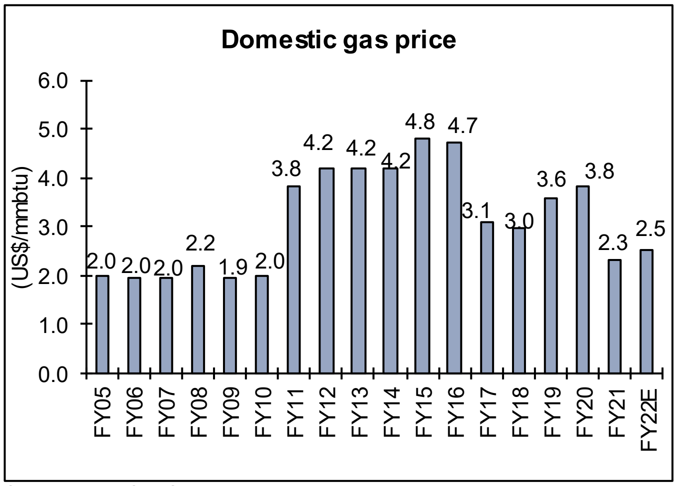
- Indian gas price is linked to price of gas in the US, UK, Canada, and Russia
- Gas price would be revised semi-annually
- Gas price for any period would be based on average price in preceding four quarters with one quarter lag. Thus, gas price for Apr-Sep'21 (H1FY22) would be based on average benchmark price in CY20.

Gas price below US$4.2/mmbtu since Apr'16

Gas price as per the new formula was fixed at US$5.6/mmbtu for the Nov'14 to Mar'15 period (H2FY15), but declined to US$5.2-4.2/mmbtu in H1-H2FY16 respectively. Gas price under this formula has been below US$4.2/mmbtu since Apr'16. It peaked at

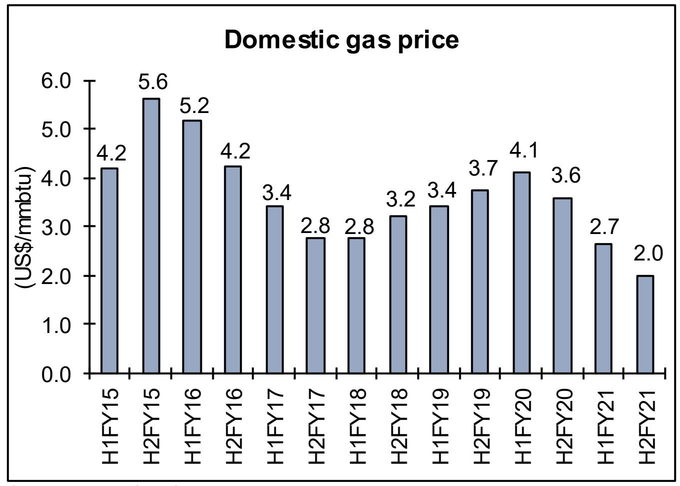
US$4.1/mmbtu in H1FY20, but plunged to US$2.66/mmbtu in H1FY21 and further to just US$2.0/mmbtu in H2FY21.

Chart 31: Annual trend in domestic gas price since FY05



Source: PPAC, I-Sec research

Chart 32: Gas price at a low of US$2.0/mmbtu in H2FY21

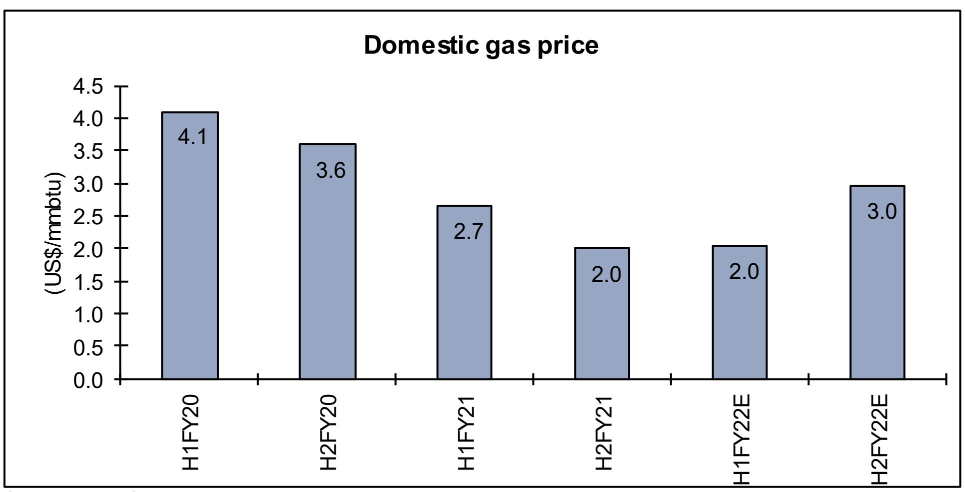


Source: PPAC, I-Sec research

Gas price to remain at US$2/mmbtu in H1FY22; 48% rise likely in H2

Gas price in H1FY22E, which would be based on prices in CY20, works out to US$2.04/mmbtu (down 23% YoY, flat HoH). We estimate gas price in H2FY22E, which would be based on price in Jul'20 to Jun'21, at US$2.96/mmbtu; it implies a rise of 48% YoY and HoH. It is based on actual prices for eight months (Jul''20-Feb'21) and futures for Mar-Jun'21.

Chart 33: Gas price under prevailing formula estimated at US$2.0-3.0/mmbtu in H1-H2FY22E



Source: PPAC, I-sec research

Gas price under current formula below cost of production

Price of gas under the prevailing formula would be below the cost of production of the largest nomination acreage producer even in FY22E. Under the prevailing formula, gas price is linked to prices of gas in three countries, which are net exporters of gas, while India is a large net importer with the share of LNG imports now over 50% of gas consumed. Auctions for gas entitled to pricing and marketing freedom led to price linked to oil price in Nov'19 and to JKM spot LNG in Feb'21.

Committee set up to review and suggest revision may propose floor

In Aug'20, the petroleum ministry has set up a committee of nomination acreage gas producers, GAIL, upstream regulator DGH and PPAC (part of petroleum ministry) to review the prevailing gas pricing formula and suggest revisions. Given that gas prices have been consistently below cost of domestic producers, the committee may have proposed a floor price, which ensures gas price is above the cost of production.

Final decision on gas pricing by finance ministry; net gainer of hike

A final decision on whether to change the gas pricing formula, which would boost realisation of nomination acreage producers like OIL is likely to be left to the finance ministry. The ministry may favour a formula change if GoI is a net gainer from a higher domestic price for gas. Our calculations suggest that rise in domestic gas price by US$1/mmbtu would lead to net rise in GoI's revenue by Rs11.2bn as follows:

- It would boost GoI revenue from royalty (Rs6.1bn), income tax revenue (Rs12.6bn), dividend (Rs9bn) and tax on dividend (Rs0.6bn) by Rs28.3bn.
- It would lead to rise in GoI's fertiliser subsidy by Rs17.1bn based on 6.5bcm of domestic gas consumed in FY20.

Table 8: Net rise in GoI revenue at Rs11.2bn on gas price rise by US$1/mmbtu

Rs-bn	FY22E
Rise in GoI revenue from:	
Royalty on gas	6.1
Income tax revenue	12.6
GoI's share of dividend	9.0
Tax paid on dividend by other investors	0.6
Total	**28.3**
Rise in GoI subsidy due to gas price rise	17.1
Net rise in GoI revenue	**11.2**

Source: Company data, I-Sec research

Largest as producer hopeful of formula change latest by Oct'21

The largest nomination acreage gas producer is hopeful of change in gas price formula latest by Oct'21. The expectation is thus that the pricing formula would change for the better in H2FY22E, if not in H1.

Upside to OIL's FY22E EPS 3-10% if gas price at US$3-4/mmbtu

Under the current formula, we expect OIL's gas price in FY22E at US$2.5/mmbtu. If the formula is changed from Apr'21 to set a floor price of US$3-4/mmbtu, it would boost OIL's FY22E EPS by 3-10%.

Nomination gas price deregulation possible in the medium term

In the medium term, deregulation of gas price for existing nomination acreage production is also not ruled out; GoI has often talked of eventually moving to uniform deregulated price of gas. Any production from new discoveries by OIL would in any case be entitled to pricing and marketing freedom.

Strong rebound in earnings on oil price surge

OIL's FY21-FY23E EPS CAGR 59%; Oil price CAGR at 15%

9MFY21 recurring EPS down 77% on plunge in oil & gas prices

OIL's 9MFY21 standalone recurring EPS was down 93% YoY due to fall in:

- Oil price realisation by 39% YoY to US$39/bbl; in INR terms it was down 35% YoY.
- Gas price realisation by 38% YoY to US$2.2/mmbtu; in INR terms it was down 34% YoY.
- Oil and gas sales volumes by 6-8% YoY.
- Rise in exploration write-off included in provisions by 7.7x (Rs7.7bn) YoY.

The fall in 9M EPS was despite 10% YoY (US$2.84/boe) fall in opex – statutory levies by 39% YoY (US$5/boe) and cost of materials by 55% YoY (US$0.5/boe). Other expenses were however up 17% YoY (US$2.6/boe). The decline in 9MFY21 consolidated recurring EPS was less steep at 77% YoY as OIL's share in profit of associates was down just 2% YoY.

FY21E EPS down 39% YoY due to 28-37% YoY fall in oil & gas prices

We estimate OIL's FY21E consolidated EPS to decline by 39% YoY due to YoY fall in:

- Oil price realisation by 28% YoY to US$44/bbl (down 24% YoY in INR terms). We estimate net oil price realisation to be 14% YoY higher in Q4FY21E.
- Gas price realisation by 37% YoY in INR terms.
- Oil and gas sales volumes by 5.2% YoY and 4.3% YoY respectively. We are assuming a fall of 3.6% YoY in oil sales volumes and rise of 10.4% YoY in gas sales volumes on the low base of Q4FY21.

Table 9: OIL's FY21E EPS to decline by 39% YoY, but rebound by 131% YoY in FY22E and 9% YoY in FY23E

	FY20	FY21E	FY22E	FY23E
OIL's EPS (Rs/sh)	**24.2**	**14.8**	**34.1**	**37.2**
YoY change	-38%	-39%	131%	9%
Brent (US$/bbl)	60.9	45.0	60.0	60.0
YoY change	-13%	-26%	33%	0%
OIL's oil price (US$/bbl)	60.8	44.0	59.0	59.0
YoY change	**-11%**	-28%	34%	0%
OIL's oil price (Rs/bbl)	4,307	3,256	4,307	4,307
	-10%	-24%	32%	0%
Gas price (US$/mmbtu)	3.8	2.3	2.5	3.1
YoY change	8%	-40%	8%	24%
Gas price (Rs/mmbtu)	272	172	183	226
YoY change	9%	-37%	6%	24%
OIL's share in NRL's profit (Rs mn)	**3,987**	**8,364**	**19,859**	**20,625**
YoY change	-23%	110%	137%	4%
INR-USD	70.9	74.0	73.0	73.0

Source: Bloomberg, Company data, I-Sec Research

FY22E EPS up 131% YoY on rise in oil price & share of NRL profit

We estimate OIL's FY22E EPS to be up 131% YoY driven by:

- 32% YoY rise in oil price realisation in INR terms (Brent at US$60/bbl).
- 8% YoY rise in domestic gas price to US$2.5/mmbtu.
- Jump in share of profit from NRL by 137% YoY to Rs19.8bn on hike in stake to 70% from 26%. Rise in share of profit (net of rise in post-tax interest cost on borrowing to fund stake increase) works out 94% YoY.

We expect oil and gas sales volumes to remain flat YoY in FY22E and 75% YoY rise in interest cost (owing to the rise in debt by Rs70bn pertaining to acquisition of incremental stake in NRL).

FY23E EPS up 9% YoY driven by higher gas price & interest cost fall

We estimate OIL's FY23E EPS to be up 10% YoY driven by:

- Rise in domestic gas price by 24% YoY to US$3.1/mmbtu. Price of gas in H1FY23E under the prevailing formula, which would be linked to US, UK, Canada and Russia prices in CY21E, works out to US$3.14/mmbtu based on CY21-TD prices.
- Fall in interest cost by 10% YoY.
- Rise in share of profit of NRL by 4% YoY.

We estimate oil and gas sales volumes and Brent (at US$60/bbl) to remain flat YoY in FY23E.

Upside to FY22E-FY23E EPS from higher oil or gas price

Oil and gas price in FY22-FY23E may be higher than estimated

We are assuming Brent at US$60/bbl in FY22-FY23E while it is currently over US$69/bbl and FY22-FY23 futures are at US$66.5-61.3/bbl. Thus, upside to our Brent price estimate cannot be ruled out. As discussed, OIL's gas price formula may be changed with a floor price being introduced, which could be US$3-4/mmbtu.

Table 10: Favourable changes may boost OIL's FY22E-FY23 EPS by 12%-21%

Rs/share	FY22	FY23
OIL's EPS		
In base case	34.1	37.2
If only Brent at US$65/bbl	37.8	40.8
If only gas is up at US$3-4/mmbtu	35.3-37.5	38.1-39.3
If both Brent at US$65/bbl and gas up at US$3-4/mmbtu	38.9-41.2	41.8-42.9
Upside to OIL's base case EPS		
If only Brent at US$65/bbl	11%	10%
If only gas is up at US$3-4/mmbtu	3-10%	2-6%
If both Brent at US$65/bbl and gas up at US$3-4/mmbtu	14-21%	12-15%

Source: I-Sec research

Upside to FY22E EPS 3-21%, and to FY23E EPS 2-15%

Upside due to higher oil and gas prices would be:

- **3%-21% to FY22E EPS.** Upside would be: i) 3-10% if gas price is US$3-4/mmbtu *vs* US$2.5/mmbtu in the base case, ii) 11% if Brent is at US$65/bbl *vs* US$60/bbl in base case, and iii) 14%-21% if both oil and gas prices are higher than our estimates.
- **2%-15% to FY23E EPS.** Upside would be: i) 2%-6% if gas price is US$3.5-4.0/mmbtu *vs* US$3.1/mmbtu in the base case, ii) 10% if Brent is at US$65/bbl *vs* US$60/bbl in base case, and iii) 12%-15% if both oil and gas prices are higher than our estimates.

Upside to oil volumes guided by company; flat volumes assumed

OIL's oil production peaked at 3.39mmt and sales volume at 3.32mmt in FY18. Oil production and sales volumes have declined thereafter by:

- 2%-3% YoY to 3.31-3.22mmt in FY19
- 6%-5% YoY to 3.12-3.05mmt in FY20
- 5%-6% YoY to 2.24-2.17mmt in 9MFY21

We are assuming oil sales volume to be:

- Down 5.2% YoY at 2.9mmt in FY21E
- Flat YoY at 2.9mmt in FY22-FY23E

OIL, in its Q3FY21 earnings call, guided for oil production rise to >4mmt by FY25. However, we are assuming oil & gas volumes to be flat YoY in FY22E-FY23E.

Upside to gas volumes guided by company; flat volumes assumed

OIL's gas production peaked at 2.94bcm in FY17 and sales volume at 2.51bcm in FY19. Oil production volumes have declined thereafter by:

- 1% YoY to 2.89bcm in FY18
- 1% YoY to 2.87bcm in FY19
- 2% YoY to 2.8bcm in FY20
- 8% YoY to 1.99bcm in 9MFY21

We are assuming oil sales volume to be:

- Down 4.3% YoY at 2.3bcm in FY21E
- Flat YoY at 2.3bcm in FY22-FY23E

OIL has guided production at 3.4-3.5bcm in FY22. However, we are assuming oil & gas volumes to be flat YoY in FY22E-FY23E.

High exploration write-off may be risk to earnings estimates

Exploration write-off high in 9MFY21-FY20 at Rs10.2bn-9.4bn

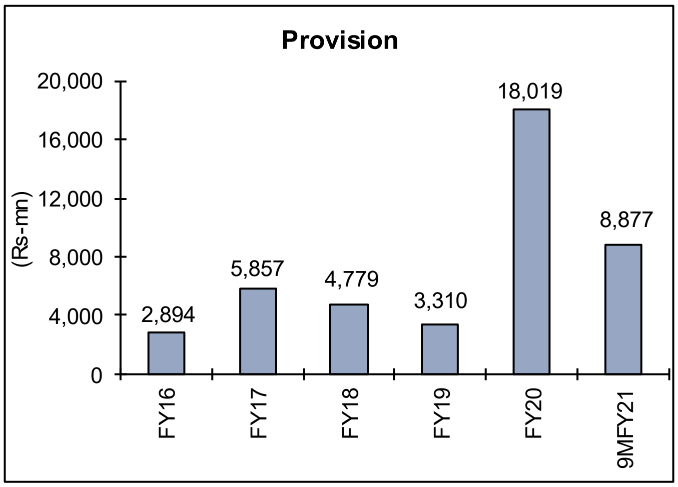
Exploration write-off including that included in provisions, which is mainly dry wells write-off, was Rs5.7bn-8.6bn in FY16-FY19 but higher at:

- Rs9.4bn in FY20. Total exploration write-off including provisions was Rs21.9bn, but Rs12.5bn of it was impairment loss on License 61 asset in Russia and US shale assets and only the balance Rs9.4bn was dry wells write-off.

- Rs10.2bn in 9MFY21. In Q3FY21, this number was high at Rs6.6bn mainly due to dry wells in NELP blocks in KG onshore and Mizoram basins.

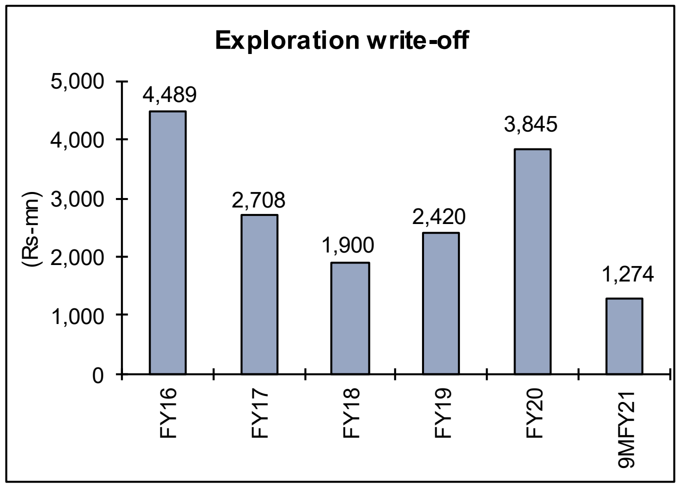
Such high exploration write-offs in Q4FY21 or in FY22-FY23E may be risk to our earnings estimates.

Chart 34: Write-offs included in provisions at Rs18bn in FY20 and Rs8.9bn in 9MFY21



Source: Company data, I-Sec research
*FY20 figure includes Rs12.5bn impairment loss of overseas assets

Chart 35: Exploration write-offs at Rs3.8bn in FY20 and Rs1.3bn in 9MFY21



Source: Company data, I-Sec research

FY16-FY20 EPS CAGR 3%; EPS peaked with oil in FY19

FY17 consolidated EPS up 20% YoY *vs* just 7% in standalone EPS

OIL's FY17 standalone recurring EPS was up 7% YoY, despite 33% YoY plunge in gas price in INR terms, driven by 5% YoY rise in oil price realisation and 48% YoY fall in tax. FY17 consolidated recurring EPS rise was much steeper at 20% YoY on the back of 3.3x jump in share of profit of associates to Rs5.2bn. This rise appears to have been driven by:

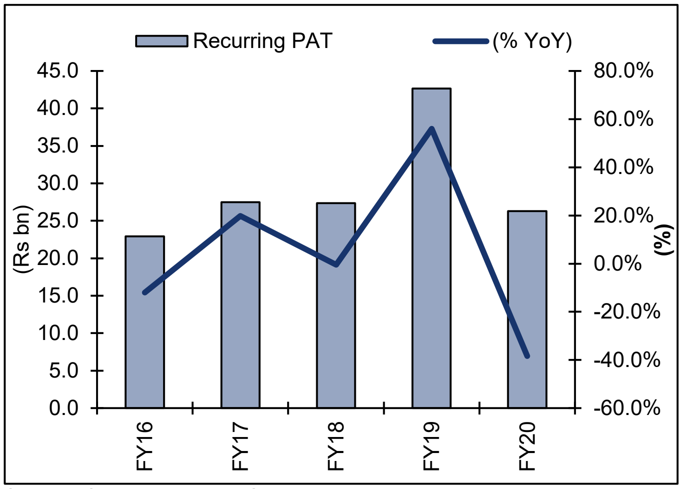
- 60% YoY rise in profit of NRL, in which OIL held 26% at that time
- Share of profit from 8-10% participating interest in Vankorneft and Taas-Yuryakh (TYNGD) assets in Russia in Oct'16

FY18 EPS flat; associates profit and interest up & other income down

FY18 standalone recurring EPS was down 1% YoY as gain from rise in oil price realisation by 13% YoY and volumes by 3% YoY was neutralised by 74% YoY rise in income tax on a low base and 7% YoY fall in gas price realisation; recurring PBT was up 12% YoY. FY18 consolidated recurring EPS was flat YoY, despite 53% YoY rise in share of profit from associates (full-year benefit of acquisition in Russia E&P assets) to Rs8bn, hit by:

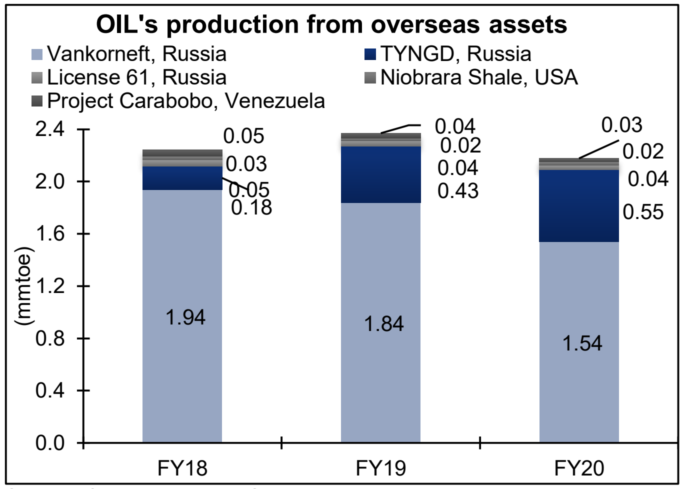
- 29% (Rs4.1bn) YoY fall in other income
- 62% (Rs4.3bn) YoY rise in tax
- 26% (Rs1.1bn) YoY rise in interest cost

Chart 36: OIL's consolidated recurring EPS grew at a CAGR of 13.6% over FY16-FY20



Source: Company data, I-Sec research

Chart 37: Assets in Russia contributed 98% of OIL's overseas production in FY20



Source: Company data, I-Sec research

FY19 EPS up 56% YoY on oil and gas price surge

OIL's FY19 standalone recurring EPS was up 36% YoY driven by:

- 33% YoY rise in oil price realisation in INR terms (23% YoY at US$68.5/bbl)
- 30% YoY rise in gas price realisation in INR terms (20% YoY at US$3.6/mmbtu)

FY19 consolidated recurring EPS rise was steeper at 56% YoY as share of profit of associates was up 44% YoY; NRL's profit was down 3% YoY, which suggests rise was driven by overseas E&P assets that also benefitted from higher oil and gas prices. OIL's TYNGD asset in Russia became cash positive and yielded its first dividend of US$64.6mn.

FY20E EPS down 38% YoY due to oil fall & exploration write-off jump

FY20 standalone EPS was down 61% YoY due to:

- Fall in oil price realisation by 10% YoY in INR terms (11% YoY to US$60.8/bbl)
- 5% YoY fall in oil sales volumes

- Rise in exploration write-off reported as such by 59% (Rs1.4bn) YoY and that included in provisions by 5.4x (Rs14.7bn) YoY. This included impairment loss of Rs12.5bn on overseas assets.

FY20 consolidated recurring EPS fall was less steep than standalone at 38% YoY as share in profit of associates was up 14% (Rs1.7bn) YoY; NRL's profit was 23% YoY lower implying OIL's share of profit was Rs1.2bn YoY lower.

Table 11: OIL's EPS up 20% YoY in FY17, flat YoY in FY18 and up 56% YoY in FY19

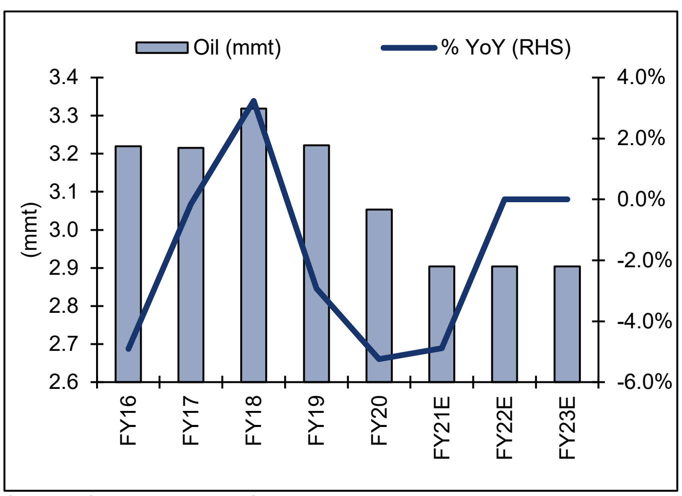
	FY16	FY17	FY18	FY19
OIL's EPS (Rs/sh)	**21.2**	**25.3**	**25.2**	**39.3**
YoY change	-12%	20%	0%	56%
Brent (US$/bbl)	**47.5**	**49.0**	**57.6**	**70.2**
YoY change	-44%	3%	18%	22%
OIL's oil price (US$/bbl)	**45.3**	**47.4**	**55.7**	**68.5**
YoY change	-4%	5%	18%	23%
OIL's oil price (Rs/bbl)	**2,966**	**3,176**	**3,591**	**4,790**
YoY change	3%	7%	13%	33%
Gas price (US$/mmbtu)	**4.7**	**3.1**	**3.0**	**3.6**
YoY change	-2%	-34%	-4%	20%
Gas price (Rs/mmbtu)	**308**	**207**	**192**	**250**
YoY change	5%	-33%	-7%	30%
Share of profit of associates (Rs mn)	**1,569**	**5,246**	**8,018**	**11,509**
YoY change	27%	234%	53%	44%
INR/USD	**65.5**	**67.1**	**64.5**	**69.9**

Source: Bloomberg, Company data, I-Sec Research

OIL's oil sales up 3% YoY in FY18; down 0.2-5.2% YoY in other years

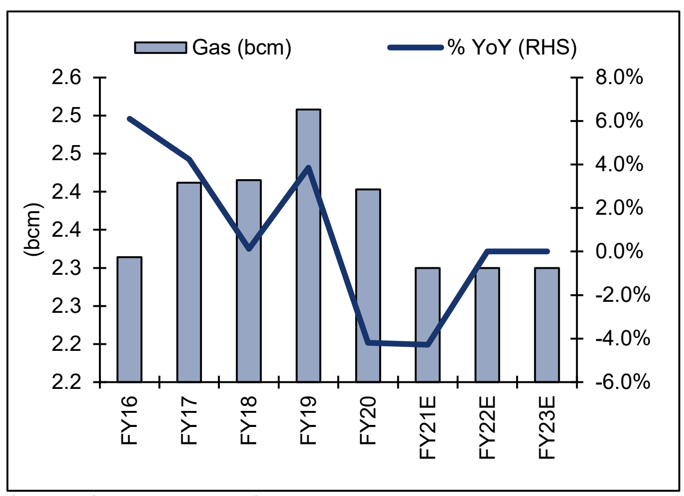
OIL's oil sales volumes have been down YoY every year since FY16 barring FY18 when it grew 3% YoY to 3.3mmt. Oil volumes posted a decline of 0.2-5.2% YoY in other years with the fall being steepest in FY20 and most modest in FY17. Volumes were down 5.9% YoY in 9MFY21, but we estimate it to be down 5.2% YoY in FY21E.

Chart 38: Oil sales volumes up 3% YoY in FY18; down in all other years; assumed flat in FY22E-FY23E



Source: Company data, I-Sec research

Chart 39: Gas sales volumes up in FY16-FY19 but down in FY20-21E; assumed flat YoY in FY22E-FY23E

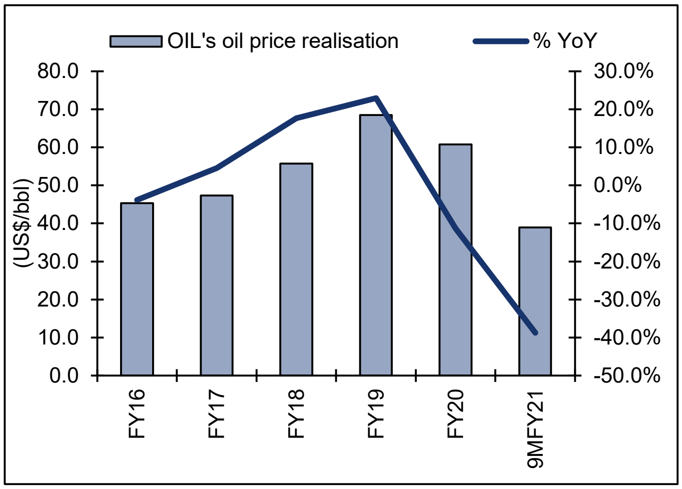


Source: Company data, I-Sec research

Gas volumes up in FY16-FY19, but down in FY20 and 9MFY21

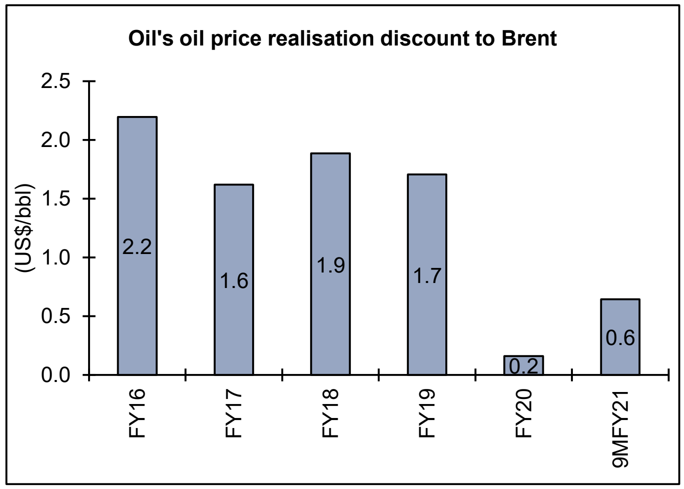
OIL's gas sales volumes were up 0.1-6.1% YoY in FY16-FY19, but were down 4.2% YoY in FY20. Volumes were also down 8.4% YoY in 9MFY20, but we are assuming FY21E volumes to be down 4.3% YoY.

Chart 40: OIL's oil price realisation down 11% YoY in FY20; further down 39% YoY in 9MFY21



Source: Company data, I-Sec research

Chart 41: OIL's oil price realisation at a discount of US$0.2-1.9/bbl to Brent in FY16-9MFY21

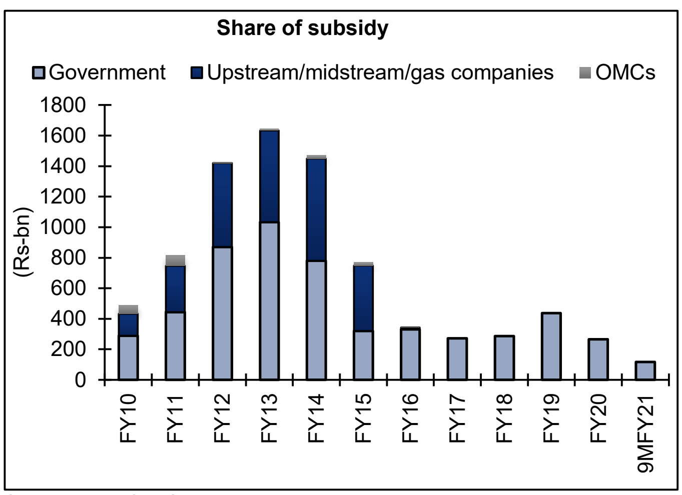


Source: Bloomberg, Company data, I-Sec research

OIL did not have to bear subsidy since FY17; even when oil US$70/bbl

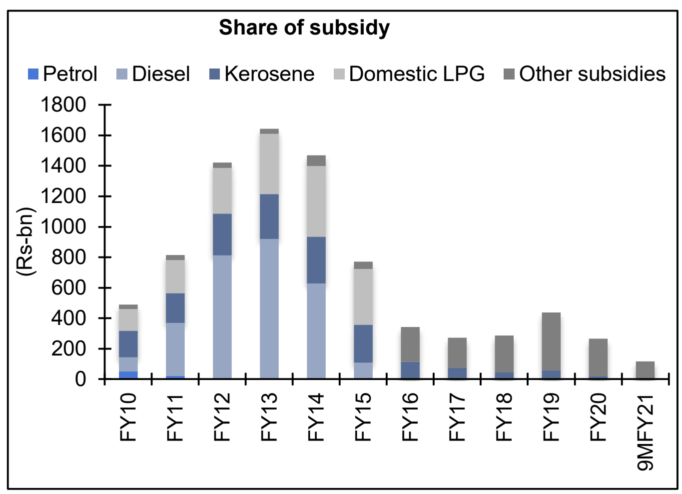
OIL had to last bear subsidy in FY16 with subsidy being US$4.1/bbl in Q1 and effectively US$1/bbl in the full year. Since FY17, upstream oil producers from the nomination acreage like OIL did not have to bear any subsidy (including in FY19 when Brent was at US$70.2/bbl).

Chart 42: OIL did not have to bear any subsidy since FY17



Source: PPAC, I-Sec research

Chart 43: No subsidy on petrol/diesel since FY16; on domestic LPG since FY17



Source: PPAC, I-Sec research

OIL's oil price up YoY in FY17-FY19, but down in FY20 and 9MFY21

There was a secular rise in OIL's oil price realisation (net of subsidy) from US$45.3/bbl in FY16 to US$68.5/bbl in FY19 when Brent increased from US$47.5/bbl to US$70.2/bbl. OIL's oil price realisation declined by 11% YoY to US$60.8/bbl in FY20 and further by 39% to US$39/bbl in 9MFY21. OIL's gross oil prices (before subsidy) have been at a discount of US$0.2-1.9/bbl to Brent during FY16-9MFY21.

OIL's gas price down in FY17-18, but up in FY19-20; plunge in FY21

OIL's natural gas price was down 34% YoY to US$3.1/mmbtu in FY17 and down another 4% YoY to US$3.0/mmbtu in FY18. Gas price bounced back by 20% YoY to US$3.6/mmbtu in FY19 and by a further 8% YoY to US$3.8/mmbtu in FY20. Gas price touched its lowest in >10 years at US$2.3/mmbtu in FY21.

OIL's E&P assets

64 assets in India and 12 outside; production from nomination

28 producing, development & 35 exploration assets across regimes

OIL has 64 E&P assets in India, which include:

- 28 nomination acreage assets – 3 are exploration while 25 are producing assets
- Two pre-NELP producing blocks; OIL is not the operator of these blocks
- Six NELP; OIL is the operator in four NELP blocks
- Nine blocks under Open Acreage Licensing Policy (OALP) Round I, 12 in Round II-III, and four in Round V
- Three blocks under Discovered Small Field (DSF) Round II. OIL is the operator in two DSF blocks. One of them is a producing block, another was scheduled to start producing in Oct'20, and third is an exploration block.

Table 12: OIL has 64 E&P assets across regimes

Block	Operated	Non-operated	Area (sqkm)
PML (Nomination)	25	0	4,800
PEL (Nomination)	3	0	332
Pre-NELP	0	2	121
NELP	4	2	9,210
DSF	2	1	158
OALP	25	0	49,160
Total	**59**	**5**	**63,781**

Source: Company

OIL's oil & gas output 9-10% & 8-9% of India's output in FY16-FY20

Most of OIL's oil and gas production is from its nomination acreage. OIL's share in India's oil production was 9-10% in FY16-FY20 when it produced 3.1-3.4mmt of oil. Its share in India's gas production was 8-9% in FY16-FY20 when it produced 2.67-2.94bcm of gas.

12 E&P assets outside India; five producing & development blocks

OIL's has 12 E&P assets outside India, which include 5 producing and two development assets:

- 8% interest in Vankorneft region in Russia acquired in Oct'16; OIL's share of production stood at 1.54mmtoe in FY20.
- 10% interest in Taas-Yuryakh region in Russia acquired in Oct'16. OIL's share of production stood at 0.55mmtoe in FY20.
- 50% interest in License 61 in Tomsk region in Russia acquired in Jul'14. OIL's share of production was at 0.036mmt in FY20.
- 20% interest in Niobrara Shale in Denver-Julesburg basin in the US acquired in Oct'12. OIL's share of production stood at 0.024mmtoe in FY20.
- 3.5% interest in Project Carabobo in Venezuela acquired in May'10. OIL's share of production was at 0.027mmt in FY20.

- 4% interest in Area-1 in Mozambique acquired in Jan'14. The onshore LNG development will initially consist of two LNG trains with total nameplate capacity of 12.88mtpa. LNG production is expected to commence in 2024.

- 17.5% interest in OML142 block in Nigeria acquired in 2006.

Table 13: OIL has 12 E&P assets outside India including five producing assets across Russia, US and Venezuela

Block	Country	Participating interest (%)
Producing		
Vankorneft	Russia	8%
Taas-Yuryakh	Russia	10%
License 61	Russia	50%
Niobrara Shale	USA	20%
Project Carabobo	Venezuela	3.5%
Development		
Rovuma Area-1	Mozambique	4%
OML142	Nigeria	17.5%
Exploratory		
SS-04,SS-09	Bangladesh	45%
Block 32	Israel	25%
Area 95/96	Libya	25%
Shakhti-II	Gabon	50%

Source: Company

Dividend of US$184m received from Russian assets in FY20

OIL as part of an Indian consortium has invested in two producing assets in Russia. The company and its partners get dividend from the SPVs of these assets. OIL received US$184mn as dividend in FY20.

Mozambique LNG FID to lead to monetising gas discoveries

FID done for Mozambique LNG in Jun'19; OIL holds 4% stake

FID on Area-1 LNG project in Mozambique was taken on 18-Jun'19. The project involves two trains with total capacity of 12.88mmtpa at a cost of ~US$22bn. LNG production is expected to start in CY24. The operator Total holds 26.5% stake and OIL holds 4% in the asset. As at Mar'20, the 2P reserve position to OIL's participating interest has been estimated at 16.2mmtoe.

12.88mmt LNG output in first phase by CY24; expansion likely later

Anadarko has made discoveries with gas resources of 75tcf in Area-1 in Mozambique. 18tcf of these gas resources would be developed for the two-train 12.88mmtpa project. 11.14mmtpa of long-term LNG sales with key LNG buyers in Asia and Europe including India has been secured. Furthermore, LNG capacity expansion is imminent since just 30% of gas resources are enough to support the initial capacity.

26.5% in Mozambique asset acquired by Total for US$3.9bn in Sep'19

Occidental acquired Anadarko, the original operator of the block, for US$38bn in CY19 mainly to fortify its position in the US Permian basin. To part fund the acquisition, Occidental sold to Total SA Anadarko's assets in Africa for US$8.8bn. Total finished acquisition of 26.5% stake in Mozambique asset from Occidental in Sep'19.

Total brings LNG experience to the table

Neither Anadarko nor its other partners in Mozambique had any LNG liquefaction project experience. Total is the second largest LNG player in the world with 20mmtpa of liquefaction capacity, trading portfolio of 40mmtpa and 20mmtpa regasification capacity.

Mozambique LNG to generate large free cashflows

Total SA expects over US$1bn of free cashflows per annum from Anadarko's African assets from CY25 after start of Mozambique LNG. We estimate cash profit from Mozambique at US$1.3bn-4.1bn at Brent of US$40-75/bbl and LNG to Brent price slope of 13%.

OIL has invested ~US$270m in equity; no further investment likely

The cost of the first phase of Mozambique LNG project was estimated at US$20bn and that including capitalised interest cost at US$24bn. With interest rates having come down sharply, the project cost including capitalized interest cost is now estimated at US$21.5-22bn. OIL had bought 4% stake in the project at US$1bn and has contributed another US$260mn-270mn as its contribution to the equity of the project. The equity brought in by all partners is estimated at US$6.5bn. OIL has approvals to invest another ~US$600mn in the equity. However, it believes that the US$15bn project financing approved for the project should be able to fund it from now on and any further contribution to the equity of the project is unlikely.

25 of OIL's 64 blocks in OALP

77% of OIL's acreage under OALP regime

OIL has domestic blocks totaling to 63,781sqkm of acreage:

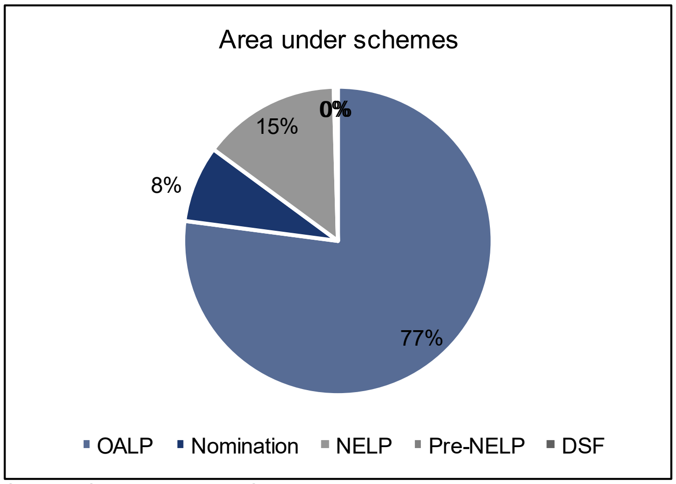
- 25 OALP blocks totalling 49,160 sqkm (77%)
- Six NELP blocks totalling 9,210 sqkm (14%)
- 28 nomination blocks totalling 5,132 sqkm (8%)
- Two pre-NELP and three DSF blocks totalling 121-158 sqkm (0.2% each)

Capex commitments total Rs150bn (US$2bn) under OALP I, II, III & V

OIL has been allotted:

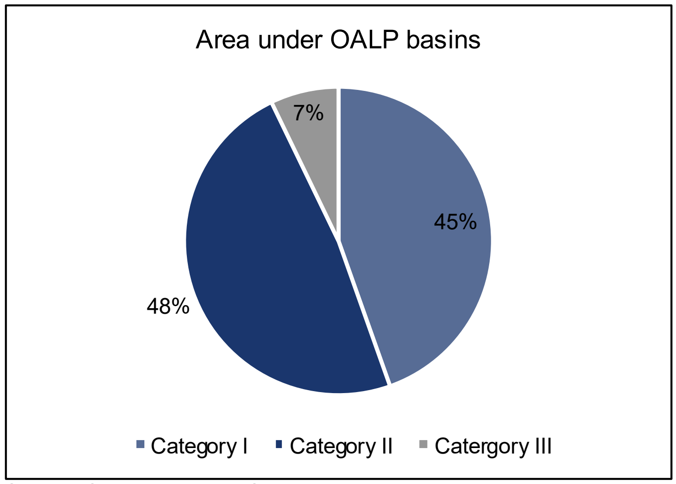
- Nine blocks out of 55 in round I of OALP with capex commitment for 55 blocks being Rs60bn (US$850mn)
- 12 out of 32 blocks in round II and II of OALP with capex commitment for 32 blocks being Rs85bn (US$1.1bn)
- Four blocks out of 11 in round V of OALP with capex commitment for 11 blocks being Rs4.7bn (US$65mn)

Chart 44: 77% of OIL's acreage is under OALP; 8-14% under nomination and NELP



Source: Company data, I-Sec research

Chart 45: 55% of acreage under OALP is in blocks in category II-III basins; 45% in category I basins



Source: Company data, I-Sec research

17 of OIL's 25 OALP blocks are category I & eight are category II & III

The ministry of petroleum and natural gas has carried out five rounds of bidding under OALP regime offering 105 blocks with a total area of 156,579sqkm. OIL was awarded:

- Nine blocks in round I bidding with total area of 7,907sqkm – all are in category I basin
- 12 blocks in round II-III bidding with total area of 34,230sqkm – four are in category I basin, seven in category II, and one in category III basin
- Four blocks in round V bidding with total area of 7,023sqkm – all are in category I basin

OALP acreage includes non-producing and 'not well explored' basins

The 26 basins under OALP regime are divided into three categories based on the maturity of resources with a total area of 3.36mn-sqkm and conventional petroleum in place of 41,971mmtoe:

- Category I (seven basins) are producing basins
- Category II (five basins) have established petroleum resources, but are yet to produce commercially
- Category III (14 basins) are basins with only prospective resources still to be intensively explored and discovered.

Table 14: 26 basins in OALP with total area of 3.36mn-sqkm

Category	No. of basins	Area (sqkm)	Conventional petroleum in-place (mmtoe)
Category I	7	9,98,325	35,511
Category II	5	7,80,974	3,877
Category III	14	15,86,150	2,481
Total	**26**	**33,65,449**	**41,871**

Source: DGH India, I-Sec research

Revenue sharing model under OALP; for category II-III attractive terms

Revenue sharing model has been introduced in the OALP regime *vs* profit sharing in the NELP and pre-NELP regimes. For OALP acreage in category I basins, revenue sharing has to be bid for while it is not a biddable criteria for OALP acreage in category II and III basins. The revenue sharing with GoI has been set as:

- For category I and CBM blocks, revenue share to government is to be quoted by the bidder at lower and higher revenue points with quote at higher revenue point capped at 50%.
- For category II and III basins:
  - Up to US$2.5bn annual revenue will attract no share from GoI
  - Annual revenue >US$2.5bn to <=US$5bn will attract revenue share of 10% from GoI
  - Annual revenue >US$5bn to <=US$10bn will attract revenue share of 30% from GoI
  - Annual revenue >US$10bn will attract revenue share of 50% from GoI

Concessional royalty rates, but shorter exploration phase under OALP

Apart from the introduction of a revenue sharing model, other key changes under OALP include:

- Submission of expression of interest throughout the year in three windows.
- **Concession in existing royalty rates for early commercial production (<4-5 years) – 10% for category I basins, 20% for category II, and 30% for category III basins.**
- The exploration phase is of 3-4 years for on-land & shallow, and deep and 'ultra deepwater' blocks respectively, with automatic extension of 9-18 months.
- FDP submission phase is of 3-5 years and development and production phase of 20-30 years.
- Exemption from seeking 'environment clearance' for conducting exploratory drilling and no restrictions on monetisation of discoveries at an early stage.

Four fiscal regimes in India before OALP

The impact of key issues affecting players in the Indian upstream oil & gas space varies with fiscal regime in which they operate.

- **Nomination regime:** State-owned players like OIL were granted Petroleum Exploration Licenses (PELs) on nomination basis up to late1980s when they were effectively the only players in the Indian upstream oil &gas space. Until the 1990s, these PELs were usually renewed when they expired. The fiscal regime applicable to oil & gas produced by OIL from the acreage they got on nomination basis is referred to as nomination regime.
- **NELP regime:** Since 1999, the government started offering oil & gas exploration blocks on global competitive bidding basis. All players including state-owned ONGC, OIL, national oil companies of other countries, and private Indian and

international players can participate in the bidding. This fiscal regime is called the New Exploration Licensing Policy (NELP).

- **Pre-NELP regime**: Since 1980, the government had started offering exploration blocks through bidding to attract private Indian and foreign investment. The fiscal regime applicable to oil & gas blocks so allotted is now referred to as pre-NELP regime, as it preceded the NELP regime.
- **CBM regime:** Coal Bed Methane (CBM) blocks have been allotted since 2006 on a globally competitive bidding basis. This is referred to as CBM regime.

No cess on oil from NELP blocks; cess on pre-NELP & nomination

OIL has to pay cess and royalty on oil produced from nomination acreage. However, there is no cess on crude produced under NELP blocks. Cess is payable on crude produced from pre-NELP blocks. However, in discovered pre-NELP blocks, cess is fixed at Rs900/t throughout. For pre-NELP exploration blocks such as the large oil producing Rajasthan block, cess has increased along with cess on oil from nomination acreage.

Table 15: No profit sharing, but no pricing freedom in nomination regime; profit sharing in NELP and pre-NELP regimes

	Nomination	Pre-NELP	NELP
Basis of allotment	Nomination basis to ONGC-OIL	Competitive bidding by private players	Competitive bidding for all
Period of allotment	pre-1999 & renewals thereafter	1980s-1999	Since 1999
Profit petroleum sharing with government	No sharing	Sharing as bid	Sharing as bid
Oil pricing	Deregulated from Apr'02 but subject to subsidy	Deregulated (linked to benchmark)	Deregulated
Gas pricing	Same as NELP gas from Jun'10; lower earlier	As laid down in PSC	As per government approved formula
Royalty on oil	10% for offshore & 20% for onshore	10% for offshore & 20% for onshore	5% on deepwater, 10% offshore & 20% onshore
Royalty on gas	10%	10%	Same as on oil
Cess	As determined by government; rising since 2002	Fixed for discovered, but same as nomination for exploration	No cess

Source: I-Sec research

NELP and pre-NELP subject to profit petroleum; not nomination

ONGC and OIL are not required to share any profit petroleum with the government on oil & gas produced from nomination acreage. Oil & gas produced from pre-NELP and NELP acreage is subject to profit petroleum.

Financial summary

Table 16: Profit & Loss statement

(Rs bn, year ending March 31)

	FY20	FY21E	FY22E	FY23E
Operating Income (Sales)	**121.7**	**87.9**	**252.3**	**256.3**
Operating Expenses	**85.7**	**65.5**	**174.5**	**174.9**
EBITDA	**32.1**	**21.1**	**75.3**	**78.9**
Margins (%)	26.4%	24.0%	29.8%	30.8%
Depreciation & Amortisation	15.4	15.9	17.4	17.5
Gross Interest	6.4	6.4	11.2	10.1
Other Income	8.3	7.6	9.3	9.4
Recurring PBT	**18.6**	**6.4**	**56.0**	**60.6**
Less: Taxes	5.5	1.9	14.1	15.3
Net Income (Reported)	**38.2**	**23.8**	**37.0**	**40.4**
Recurring Net Income	**26.3**	**16.0**	**37.0**	**40.4**

Source: Company data, I-Sec research

Table 17: Balance sheet

(Rs bn, year ending March 31)

	FY20	FY21E	FY22E	FY23E
Assets				
Total Current Assets	55.4	51.6	59.0	60.7
of which cash & cash eqv.	38.5	25.9	33.5	22.4
Total Current Liabilities & Provisions	47.7	50.1	50.6	53.2
Net Current Assets	**-13.3**	**-20.5**	**1.1**	**-0.8**
Investments	252.1	252.1	256.2	256.2
Net Fixed Assets	**128.8**	**149.8**	**210.6**	**230.6**
of which				
Capital Work-in-Progress	20.3	20.3	23.5	23.5
Total Assets	407.2	421.0	510.7	528.8
Liabilities				
Borrowings	**126.7**	**130.7**	**200.7**	**180.7**
Equity Share Capital	10.8	10.8	10.8	10.8
Face Value per share (Rs)	10	10	10	10
Reserves & Surplus*	277.6	274.7	299.4	326.4
Net Worth	**288.5**	**285.6**	**310.3**	**337.3**
Total Liabilities	**407.2**	**421.0**	**510.7**	**528.8**

Source: Company data, I-Sec research

Table 18: Quarterly trend

(Rs bn, year ending March 31)

	Mar-20	Jun-20	Sep-20	Dec-20
Net sales	26.1	17.5	21.8	21.4
growth (YoY)	(16%)	(48%)	(32%)	(28%)
EBITDA	(4.8)	1.8	7.1	(0.0)
EBITDA Margin (%)	(18.3)	10.4	32.7	(0.3)
Other income	3.9	1.3	1.1	1.1
Add: Extraordinaries	(11.9)	0.9	1.3	(10.1)
Recurring Net Profit	4.1	1.2	5.1	(1.2)
Reported Net Profit	16.0	0.3	3.8	8.9

Source: Company data, I-Sec research

Table 19: Cashflow statement

(Rs bn, year ending March 31)

	FY20	FY21E	FY22E	FY23E
Operating Cashflow				
Working Capital Changes	24.3	(7.3)	21.7	(1.9)
Capital Commitments	(30.9)	(38.2)	(83.9)	(40.0)
Free Cashflow	(19.4)	(16.9)	(54.5)	17.9
Cashflow from Investing Activities	(12.1)	(38.2)	(88.0)	(40.0)
Inc (Dec) in Borrowings	19.1	4.0	70.0	(20.0)
Dividend paid	(12.3)	(7.4)	(17.2)	(18.4)
Chg. in Cash & Bank balance	60.0	25.9	33.5	22.4

Source: Company data, I-Sec research

Table 20: Key ratios

(Year ending March 31)

	FY20	FY21E	FY22E	FY23E
Per Share Data (in Rs.)				
Reported EPS	24.2	14.8	34.1	37.2
Diluted Recurring EPS	(6.7)	19.7	30.9	53.4
Recurring Cash EPS	38.4	29.4	50.2	53.4
Dividend per share (DPS)	10.0	6.0	14.0	15.0
Book Value per share (BV)	266.0	263.4	286.1	311.0
Growth Ratios (%)				
Operating Income	-59%	-69%	1014%	6%
EBITDA	-43%	-34%	257%	5%
Recurring Net Income	-38%	-39%	131%	9%
Diluted Recurring EPS	-38%	-39%	131%	9%
Diluted Recurring CEPS	-28%	-23%	70%	6%
Valuation Ratios (x)				
P/E	5.4	8.9	3.9	3.5
P/CEPS	3.4	4.5	2.6	2.5
P/BV	0.5	0.5	0.5	0.4
EV / EBITDA	6.8	11.2	4.0	3.7
EV / Operating Income	15.0	15.6	17.8	17.2
EV / FCF	(11.9)	(14.7)	(5.7)	16.8
Operating Ratios				
Other Income / PBT (%)	44.5%	119.5%	16.6%	15.5%
Effective Tax Rate (%)	29.5%	30.0%	25.2%	25.2%
NWC / Total Assets (%)	-3.3%	-4.9%	0.2%	-0.1%
D/E Ratio (%)	43.9%	45.8%	64.7%	53.6%
Profitability Ratios (%)				
Rec. Net Income Margins	22.3%	19.2%	34.5%	36.9%
RoCE	9.0%	5.3%	16.2%	15.3%
RoNW	14.8%	9.9%	14.6%	14.2%
Dividend Payout Ratio	41.2%	40.6%	41.0%	40.3%
Dividend Yield	7.6%	4.6%	10.6%	11.4%
EBITDA Margins	30.5%	26.8%	72.5%	74.4%

Source: Company data, I-Sec research

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