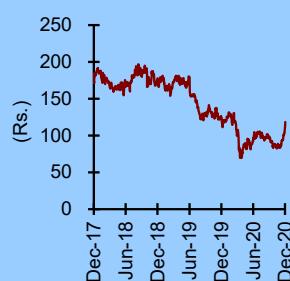


Sector update

Oil & Gas and
PetrochemicalsGAIL (HOLD)
Target price: Rs90

Price chart



INDIA

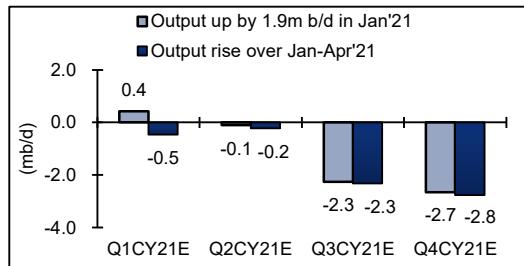
Oil upstream

Vaccine hopes drive oil prices up; OPEC+ also does its part

Brent is up 34% from lows in end-Oct'20 driven by hope that Covid vaccines would lead to demand recovery. The oil price surge is despite second wave of Covid in Europe and US (which has led to demand recovery reversal), and surge in Libyan oil output from 0.1m b/d to 1.25m b/d. Biden administration lifting US sanctions on Iran oil exports is another risk. US oil rig count is up 40% (69) from lows in mid-Aug'20, which together with high oil prices may drive further recovery in US oil output. OPEC+ deciding to raise output from Jan'21 more modestly than earlier agreed is likely to ensure global supply deficit even in Q1CY21E. Thus, OPEC+ has done its part to prevent supply surplus until vaccine boosts demand. This augurs well for oil prices (positive for GAIL) though risks remain.

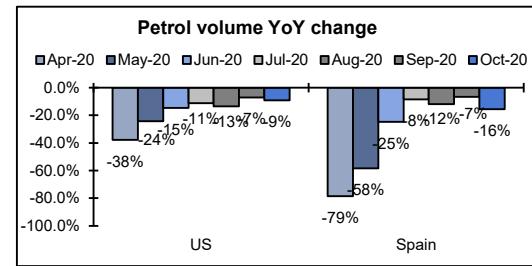
- **Oil up 34% from lows despite multiple headwinds due to Covid vaccines:** Brent is up 34% from US\$36.9/bbl on 30-Oct'20 to US\$49.5/bbl on 4-Dec'20 driven by hope of oil demand recovery due to announcements of multiple high-efficacy vaccines against Covid. The oil price surge is despite: 1) second wave of Covid in Europe and the US, which has led to demand recovery reversal; 2) surge in Libya's oil output from 0.1m b/d in Jul'20 to 1.25m b/d; 3) risk of Biden administration lifting US sanctions on oil exports by Iran, which would boost Iran's output and global supply; and 4) further rise in US oil output as onshore oil rig count is up by 69 (40%) from mid-Aug lows.
- **Demand recovery has reversed in Europe and US due to second Covid wave:** Second wave of Covid in Spain has meant that diesel and gasoline consumption decline was steeper at 13.7-15.6% YoY in Oct'20 vs 7.7-6.6% YoY fall in Sep'20. Gasoline consumption in the US was down 9.3-9.9% YoY in Oct-Nov'20 vs 7.1% YoY fall in Sep'20. US distillate consumption recovery also reversed with fall being 6.7% YoY in Oct'20 vs 2.6% YoY in Sep'20, but fall was just 3.3% YoY in Nov'20.
- **Recovery in oil prices and onshore oil rig count suggest further rise in US oil output:** US oil output was up 841k b/d in Sep'20 at 10.86m b/d from low of 10m b/d in May'20 as per the more reliable EIA monthly data and at 11.1m b/d in the week ended 27-Nov'20 as per the EIA weekly data. US shale output at 7.14m b/d was up 955k b/d in Sep'20 from low of 6.19m b/d in Apr. US shale and total output are still 1.1-2m b/d below peak level respectively. US oil onshore rig count, which is a lead indicator of US oil output, was up by 69 (40%) from low in mid-Aug. The recent oil price surge, even if it does not sustain, would allow producers to hedge at higher prices and boost output.

OPEC+ decision to raise output gradually to ensure global supply deficit even in Q1CY21E



Source: IEA, I-Sec research

Demand recovery reversed in Spain & US in Oct'20 due to Covid second wave



Source: EIA, CLH, I-Sec research

- **Supply deficit likely even in Q1CY21E as OPEC+ now plans more modest output rise from Jan'21 than earlier agreed:** IEA estimates global oil supply deficit at 2.1-2.8m b/d in Q3-Q4CY20E. However, surplus of 0.4m b/d was likely in Q1CY21E if OPEC+, as agreed in Apr'20, was to prune output cuts from 7.7m b/d to 5.8m b/d from Jan'21. However, we now estimate supply deficit of 0.5m b/d in Q1CY21E and 0.2-2.8m b/d in Q2-Q4CY21E as OPEC+ has decided to raise output by just 0.5m b/d in Jan'21 and by not more than 0.5m b/d in later months and only after deliberations.

Research Analysts:

Vidyadhar Ginde
vidyadhar.ginde@icicisecurities.com
+91 22 6637 7274

Aksh Vashishth
aksh.vashishth@icicisecurities.com
+91 22 6637 7386

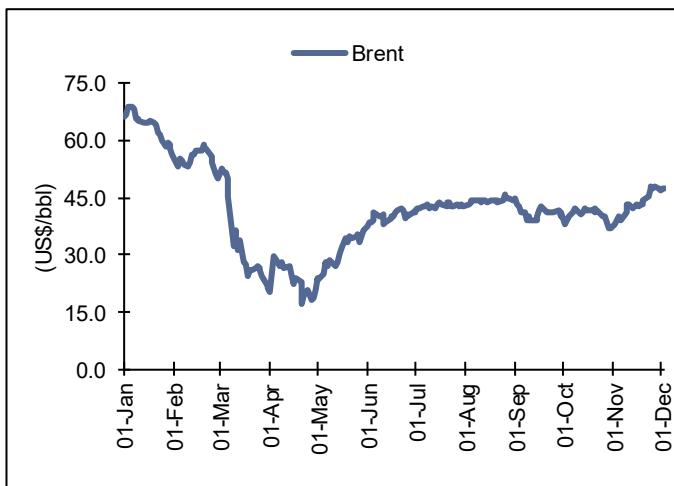
Vaccine hopes & OPEC+ decision drive up oil prices

Oil up due to Covid vaccines despite multiple headwinds

Brent up 34% from recent lows in end-Oct'20

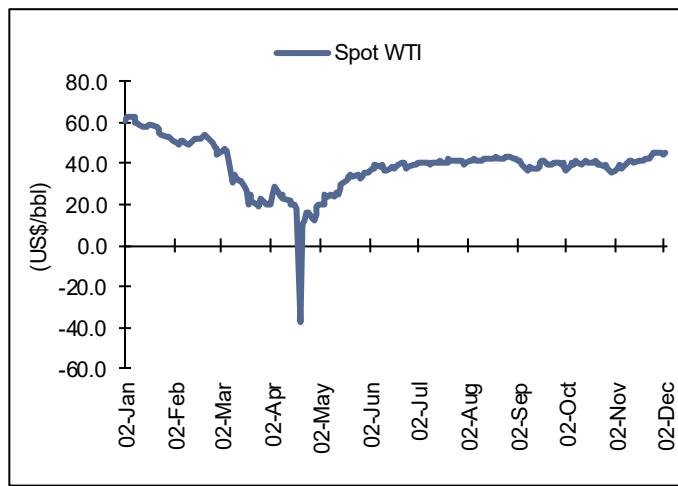
Brent recovered sharply from the lows in Apr'20 to US\$45.6/bbl on 25-Aug'20 driven by recovery in global demand and OPEC+ output cuts from May'20. However, seasonally weak demand in Sep-Oct, second Covid wave in the US and Europe and rise in Libyan oil output led to Brent correcting to a low of US\$39.6/bbl on 30-Oct'20. It is up 34% from that level to US\$49.5/bbl on 4-Dec'20 driven by hope of oil demand recovery due to announcements of multiple high-efficacy vaccines against Covid.

Chart 1: Brent surged to US\$49.5/bbl on 4-Dec'20 from low of US\$39.6/bbl on 30-Oct'20



Source: Bloomberg, I-Sec research

Chart 2: WTI recovered to US\$45.6/bbl on 4-Dec'20 from low of US\$35.8/bbl on 30-Oct'20



Source: Bloomberg, I-Sec research

Oil prices surged despite multiple headwinds

The recent surge in oil prices is despite:

- Second wave of Covid in Europe and the US, which has led to demand recovery reversal
- Surge in Libya's oil output from 0.1mb/d in Jul'20 to 1.25mb/d
- Risk of Biden administration lifting US sanctions on oil exports by Iran, which would boost Iran's output and global supply
- Further rise in US oil output as onshore oil rig count is up by 69 (40%) from mid-Aug lows

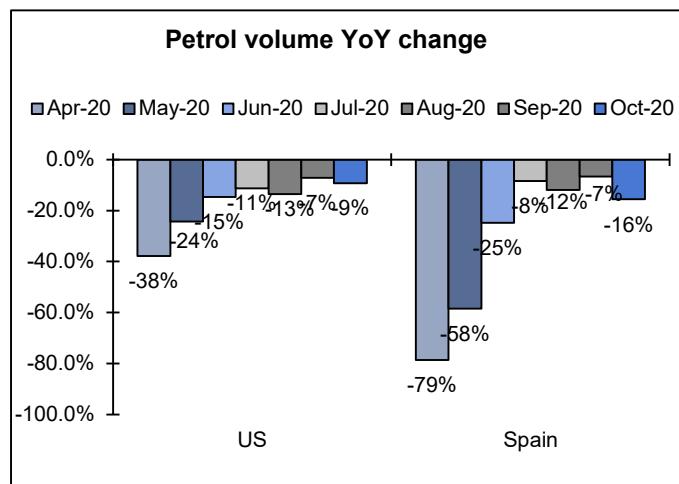
Demand recovery reversal in US & Europe due to second wave

US & Spain petrol consumption fall steeper in Oct'20 than in Sep'20

Petrol consumption in US and Spain had recovered from lows in Apr'20 with fall being the most modest in Sep'20. However, a second wave of Covid in the US and Europe has meant that demand recovery reversed in Oct'20 in Spain and US. Petrol consumption decline was:

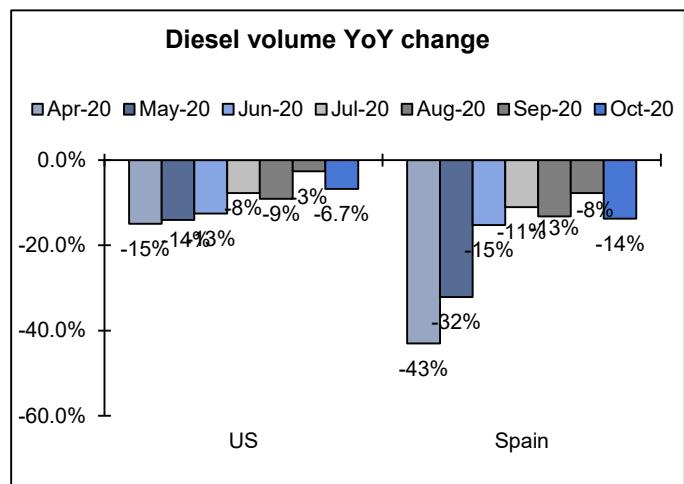
- Steeper at 15.6% YoY in Oct'20 vs 6.6% YoY in Sep'20 in Spain.
- Steeper at 9.3-9.9% YoY in Oct-Nov'20 vs 7.1% YoY in Sep'20 in US.

Chart 3: US and Spain petrol consumption down 9.3-15.6% YoY in Oct'20 vs 7.1-6.6% YoY in Sep'20



Source: EIA, CLH, I-Sec research

Chart 4: Spain and US diesel consumption fall steeper in Oct'20 than in Sep'20



Source: EIA, CLH, I-Sec research

Diesel recovery also reversed in US and Spain in Oct; US better in Nov

Diesel consumption in the US and Spain had recovered from lows in Apr'20 with fall being the most modest in Sep'20. However, demand recovery reversed in Oct'20 in Spain and US due to second wave of Covid. Diesel consumption decline was:

- Steeper at 13.7% YoY in Oct'20 vs 7.7% YoY in Sep'20 in Spain.
- Steeper at 6.7% YoY in Oct'20 vs 2.6% YoY in Sep'20 in the US. However, demand decline at 3.3% YoY in Nov'20 in the US was more modest than in Oct'20, but steeper than in Sep'20.

Libyan oil output up sharply from lows

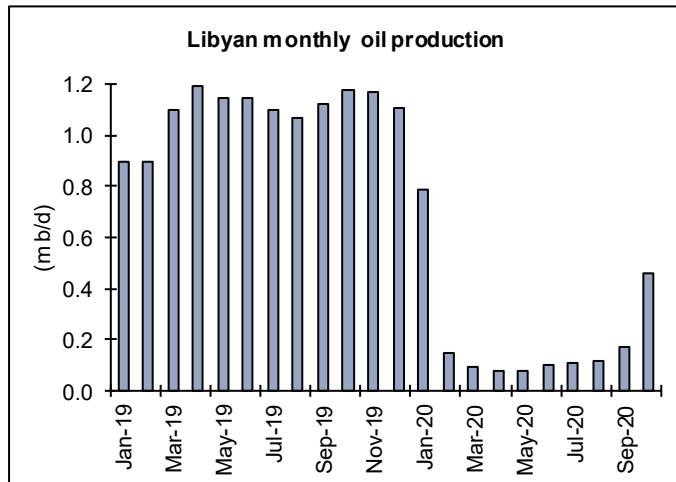
Libyan output up to 1.25m b/d from low of 0.1m b/d in Apr-Jul'20

Libyan oil output, which plunged to a low of 0.1m b/d in Apr-Jul'20, has risen to 0.46m b/d in Oct'20 following ceasefire among warring factions and state-owned oil producer National Oil Company (NOC) lifting force majeure in oilfields one by one. Libyan oil output is believed to be over 1m b/d in Nov'20 and currently. Libya's NOC indicated that its production surged to 1.25m b/d on 18-Nov'20 and guided that it could touch 1.3m b/d in Dec'20.

Libyan oil output likely to be up sharply YoY in CY21E

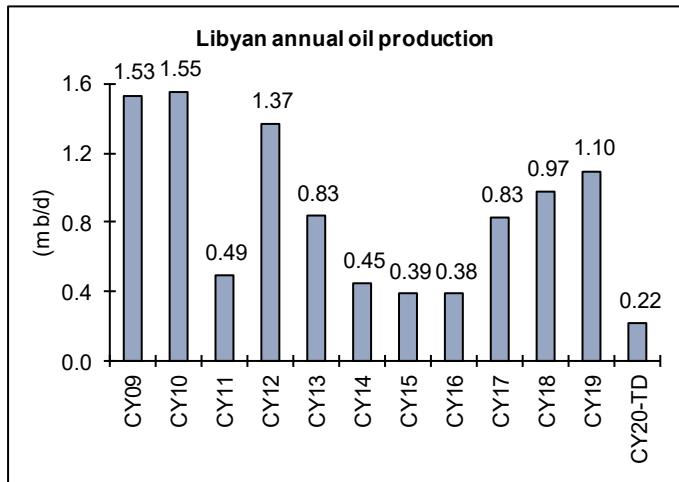
Libyan oil output is just 0.22m b/d in CY20-TD up to Oct'20 and we estimate it at 0.38m b/d in CY21E. It is likely to be up over 3x to 1.2m b/d or higher in CY21E.

Chart 5: Libyan oil output at 0.46m b/d in Oct'20 and 1.25mb/d now, up from 0.1m b/d in Jul'20



Source: Bloomberg, Argus, I-Sec research

Chart 6: CY20-TD Libyan output at 0.22m b/d lower than in other conflict years CY11 & CY14-CY16



Source: Bloomberg, Argus, I-Sec research

Rig count & oil price rebound suggest further 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 6.19m b/d in Apr'20 from 8.25m b/d in Feb'20. 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 0.8m b/d from lows; shale output up 1m b/d from lows

US oil output in Sep'20 as per EIA's more reliable monthly data is up 841k b/d at 10.86m b/d from low of 10m b/d in May'20. US oil output as per the less reliable weekly data is also at 11.1m b/d in the week ended 27-Nov'20. US shale output is up 955k b/d in Sep'20 at 7.14m b/d from low of 6.19m b/d in Apr'20. US shale and total output are still 1.1-2m b/d below peak level respectively.

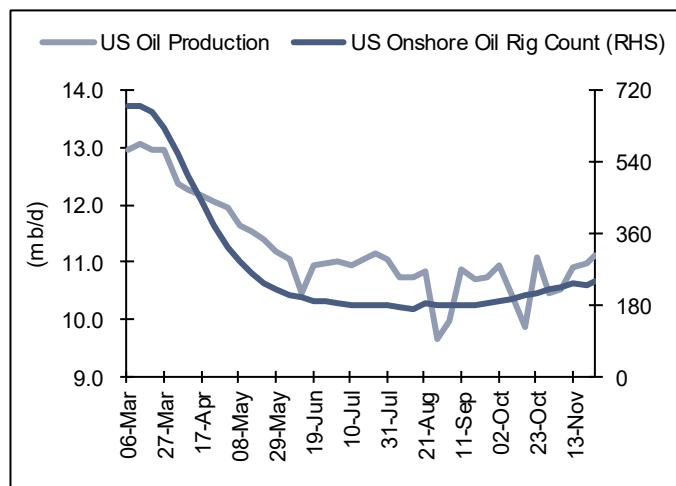
US oil rig count bottomed out in mid-Aug; 75% below level in Mar'20

US onshore oil rig count declined by 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 rising again in Aug'20.

Rig count rise by 40% and oil price by 34% to boost US oil output

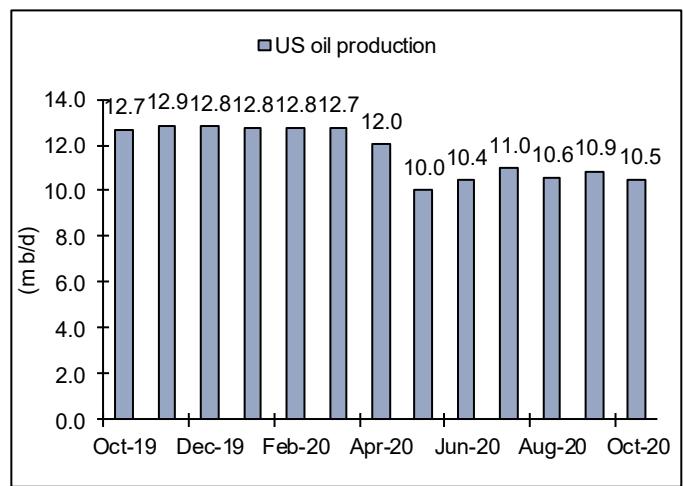
US oil rig count, which is a lead indicator of US oil output, is up 40% from lows in mid-Aug'20 to 241 in the week ended 25-Nov'20. The rise in rig count and recent surge in oil prices, even if it does not sustain, would allow producers to hedge at higher prices and boost output.

Chart 7: US oil output up 0.8m b/d from lows in May'20; US oil rig count up 40% from Aug lows



Source: EIA, Baker Hughes, I-Sec research

Chart 8: US oil production bottomed out in May'20; up 0.8m b/d in Sep'20 from lows in May'20



Source: EIA, I-Sec research

OPEC+ decision to gradually raise output to ensure deficit in Q1

OPEC+ to gradually raise output – and after monthly deliberations

OPEC+ in its meeting on 3-Dec'20 has decided to adjust production by 0.5m b/d from 7.7m b/d to 7.2m b/d (vs 5.8m b/d decided in Apr'20 meeting). Furthermore, OPEC+ has decided to hold monthly meetings starting Jan'21 to assess market conditions and decide on further production adjustments for the following month, with further monthly adjustments being not more than 0.5m b/d. This ensures supply deficit of 0.5m b/d in Q1CY21E (vs surplus of 0.4m b/d estimated earlier) even if OPEC+ raises production by 0.5m b/d every month starting Jan'21. OPEC+ production could thus rise by 1.9m b/d by Apr'21.

Supply deficit likely even in Q1CY21E on modest output rise

IEA estimates global oil supply deficit at 2.1-2.8m b/d in Q3-Q4CY20E. However, surplus of 0.4m b/d was likely in Q1CY21E if OPEC+, as agreed in Apr'20, was to prune output cuts from 7.7m b/d to 5.8m b/d from Jan'21. However, OPEC+ has decided to raise output by just 0.5m b/d in Jan'21 and by not more than 0.5m b/d in later months – and only after deliberations. We now estimate supply deficit of 0.5m b/d in Q1CY21 and 0.2-2.8m b/d in Q2-Q4CY21E given the gradual rise in OPEC+ output.

Table 9: Global oil supply deficit in CY21 estimated at 1.4m b/d vs 0.5-2.6m b/d surplus in CY19-CY20E

m b/d	CY19	CY20E	CY21E
Non-OPEC	65.6	63.0	63.5
OPEC	34.9	30.9	32.1
Global supply	100.6	93.9	95.6
Global demand	100.0	91.3	97.1
Supply surplus/(deficit)	0.5	2.6	(1.4)
YoY change			
Non-OPEC		(2.7)	0.5
OPEC		(4.0)	1.3
Global supply		(6.7)	1.7
Global demand		(8.8)	5.8

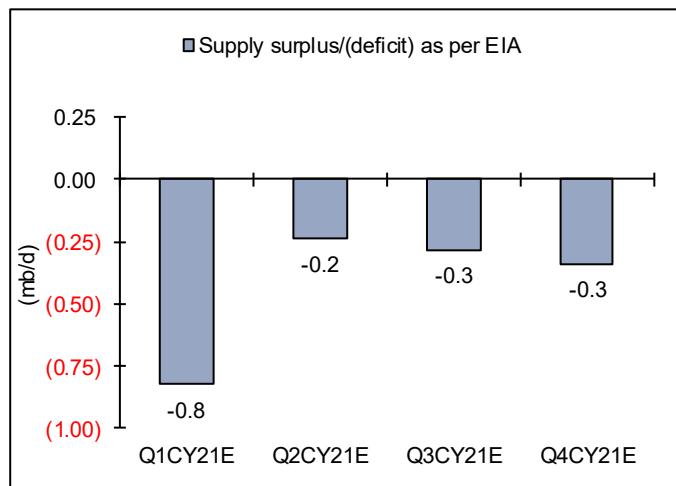
Source: IEA, I-Sec research

Supply deficit of 0.2-2.8m b/d in Q1-Q4CY21E as per IEA

Based on IEA demand and non-OPEC output estimates, we estimate global supply deficit in the four quarters of CY21E as follows:

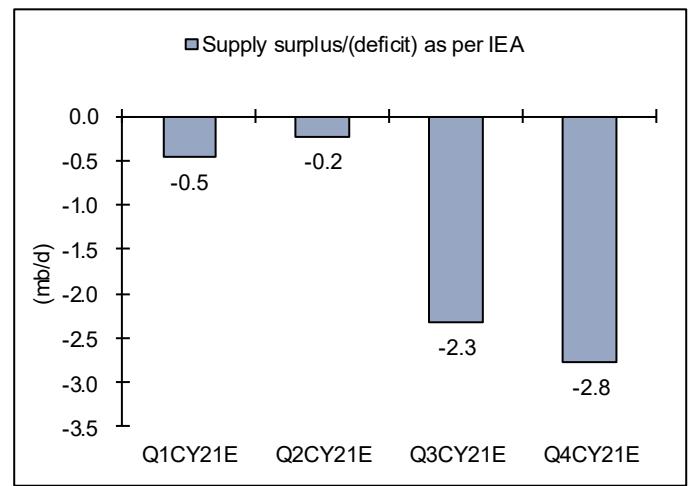
- 0.5m b/d in Q1CY21E.
- 0.2m b/d in Q2CY21E.
- 2.3m b/d in Q3CY21E.
- 2.8m b/d in Q4CY21E.

Chart 10: Global oil supply deficit at 0.2-0.8m b/d in Q1-Q4CY21E as per EIA



Source: EIA, I-Sec research

Chart 11: Global oil supply deficit at 0.2-2.8m b/d in Q1-Q4CY21E as per IEA



Source: IEA, I-Sec research

Supply deficit of 0.2-0.8m b/d in Q1-Q4CY21E as per EIA

EIA estimates global demand-supply balance in the four quarters of CY21E as follows:

- Deficit of 0.8m b/d in Q1CY21E
- Deficit of 0.2m b/d in Q2CY21E
- Deficit of 0.3m b/d in Q3CY21E
- Deficit of 0.3m b/d in Q4CY21E

"In case of industry/sector reports or a report containing multiple stocks, the rating/recommendation for a particular stock may be based on the last released stock specific report for that company."

This report may be distributed in Singapore by ICICI Securities, Inc. (Singapore branch). Any recipients of this report in Singapore should contact ICICI Securities, Inc. (Singapore branch) in respect of any matters arising from, or in connection with, this report. The contact details of ICICI Securities, Inc. (Singapore branch) are as follows: Address: 10 Collyer Quay, #40-92 Ocean Financial Tower, Singapore - 049315, Tel: +65 6232 2451 and email: navneet_babbar@icicisecuritiesinc.com, Rishi_agrawal@icicisecuritiesinc.com.

"In case of eligible investors based in Japan, charges for brokerage services on execution of transactions do not in substance constitute charge for research reports and no charges are levied for providing research reports to such investors."

New I-Sec investment ratings (all ratings based on absolute return; All ratings and target price refers to 12-month performance horizon, unless mentioned otherwise).
BUY: >15% return; ADD: 5% to 15% return; HOLD: Negative 5% to Positive 5% return; REDUCE: Negative 5% to Negative 15% return; SELL: < negative 15% return

ANALYST CERTIFICATION

I/We, Vidyadhar Ginde (A.C.A. GRAD.CWA); Aksh Vashishth, MBA; authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of the ICICI Securities Inc. It is also confirmed that above mentioned Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months and do not serve as an officer, director or employee of the companies mentioned in the report.

Terms & conditions and other disclosures:

ICICI Securities Limited (ICICI Securities) is a full-service, integrated investment banking and is, inter alia, engaged in the business of stock brokering and distribution of financial products. ICICI Securities Limited is a SEBI registered Research Analyst with SEBI Registration Number – INH000000990. ICICI Securities Limited SEBI Registration is INZ000183631 for stock broker. ICICI Securities is a subsidiary of ICICI Bank which is India's largest private sector bank and has its various subsidiaries engaged in businesses of housing finance, asset management, life insurance, general insurance, venture capital fund management, etc. ("associates"), the details in respect of which are available on www.icicibank.com.

ICICI Securities is one of the leading merchant bankers/ underwriters of securities and participate in virtually all securities trading markets in India. We and our associates might have investment banking and other business relationship with a significant percentage of companies covered by our Investment Research Department. ICICI Securities generally prohibits its analysts, persons reporting to analysts and their relatives from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover.

Recommendation in reports based on technical and derivative analysis centre on studying charts of a stock's price movement, outstanding positions, trading volume etc as opposed to focusing on a company's fundamentals and, as such, may not match with the recommendation in fundamental reports. Investors may visit icicidirect.com to view the Fundamental and Technical Research Reports.

Our proprietary trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein.

ICICI Securities Limited has two independent equity research groups: Institutional Research and Retail Research. This report has been prepared by the Institutional Research. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, target price of the Retail Research.

The information and opinions in this report have been prepared by ICICI Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of ICICI Securities. While we would endeavour to update the information herein on a reasonable basis, ICICI Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent ICICI Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or ICICI Securities policies, in circumstances where ICICI Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. ICICI Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. ICICI Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice.

ICICI Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.

ICICI Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction.

ICICI Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months.

ICICI Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. ICICI Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ICICI Securities nor Research Analysts and their relatives have any material conflict of interest at the time of publication of this report.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

ICICI Securities or its subsidiaries collectively or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report. Vidyadhar Ginde (A.C.A. GRAD.CWA), Research Analyst of this report, owns insignificant (20) number of equity shares in IOC, (22) number of equity shares in HPCL and (900) number of equity shares in ONGC mentioned in the report.

Since associates of ICICI Securities are engaged in various financial service businesses, they might have financial interests or beneficial ownership in various companies including the subject company/companies mentioned in this report.

ICICI Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Neither the Research Analysts nor ICICI Securities have been engaged in market making activity for the companies mentioned in the report.

We submit that no material disciplinary action has been taken on ICICI Securities by any Regulatory Authority impacting Equity Research Analysis activities.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject ICICI Securities and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

This report has not been prepared by ICICI Securities, Inc. However, ICICI Securities, Inc. has reviewed the report and, in so far as it includes current or historical information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.