Federation of Indian Petroleum Industry

JUNE
2020

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

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Executive Summary

The shock of shuttering the economy is real and very large. But this is not a normal recession because we decided to shut the economy down. Many countries across the world are under varied degrees of lockdown since early March 2020. The prolonged non-activity has already started taking a toll on the Global economy. As many countries are emerging from the lockdown and desperately looking to blow some life into the economy, a recent IEA report draws the roadmap for a green recovery. The recommendations of the report will boost economic growth by 1.1 per cent between 2021 – 2023, but will also generate over 9 million jobs.

Amid much gloom, the US unemployment data for the month of June shows a recovery of 13.3 per cent, highest monthly improvement since 1939. However, significant downside risks still exist as Government will roll back some of the support schemes by the end of July. Latin American countries which are still grappling with COVID-19 and the lockdowns, is set to witness a major economic contraction of as much as 7.8 per cent. Some of the largest economies of the region such as Brazil and Argentina are expected to be the worst hit due to the pandemic. In Europe many Governments have already over stretched there budgets to cushion the economies against the COVID induced recession. As the Governments are forced to withdraw support, the resilience of the economies will be put to test.

In India, while the COVID-19 cases continue to see a sharp rise, the economy has started opening up. In a recent report, IMF has pointed out that the country's economy may contract by as much as 4.5 per cent in the current fiscal. However, all is still not lost as the country's fundamentals remain strong. The rating agency Fitch has forecasted that if India, through proper handling of financial sector, may unleash its animal instinct in the next fiscal year and grow by as much as 8.0 per cent. Drawing learnings from the COVID experience, a recent report by CEEW and NIPFP has emphasized on the need for a development model for the country that focuses on the bottom of the pyramid.

Global crude benchmarks saw an upwards trend as demand for crude embarked on recovery. OPEC plus allies and major producers delivered the production cut agreement as markets saw 10 million surplus barrels of oil trimmed leading to better equilibrium between demand and supply. Increase in road transportation in China, Japan, South Korea, India, Europe and in the North America was the driving force in crude demand recovering. OPEC and allies met on June 6th and agreed to extend production cut to balance the market. Larger output cuts of crude will come from US and Russia, outside of OPEC. Average Brent, WTI and Dubai basket crude prices went up by 27.32 %, 37.05 % and 28.48 % respectively from their May prices. Oil demand forecast for Q2 2020 will remain at 81.30 mb/d, unchanged from last month's forecast. Similarly forecast for Q3 2020 and Q4 2020 will remain at 92.28 mb/d and 96.30 mb/d respectively, unchanged from previous assessment.

Upstream sector saw further decline in drilling activities as oil and gas companies suspended drilling activities to manage their cash flow. Month of May saw global rig count going down by 338 units from

April 2020 and stood at 1,176. North American recorded the highest decline in number of active drilling rigs as their rig count went below the Middle East rig count.

In the product market, Asian refineries saw margins diving into negative territory due to the recovering crude price and freight rates. Refinery margins for Oman in Asia lost $1.63 on m-o-m to average minus $3.72/b in April and were lower by $7.69 on y-o-y basis. Prices of refined products in the Singapore market saw an increase as the demand approached recover.

Natural gas price saw a 25% decrease in Europe as demand plummeted further as Covid-19 pandemic continued to impact the industrial activity. Asian LNG cargoes saw its price going up by 20% as demand for LNG picked up in South Korea and Japan.

Indian crude benchmark averaged $40.49 per barrel in June, up by 40.15 % on Month on Month (M-o-M) but down by 34.70 % on a year on year (Y-o-Y) basis, respectively. Upstream sector saw a ‘V’ shaped recovery as rig count sharply rebounded. 16 new rigs were added in the month of Month that took the rig count to 106. As the unlocking phase of lockdown began in May, consumption of petroleum products went by 47.5% in the month of May.

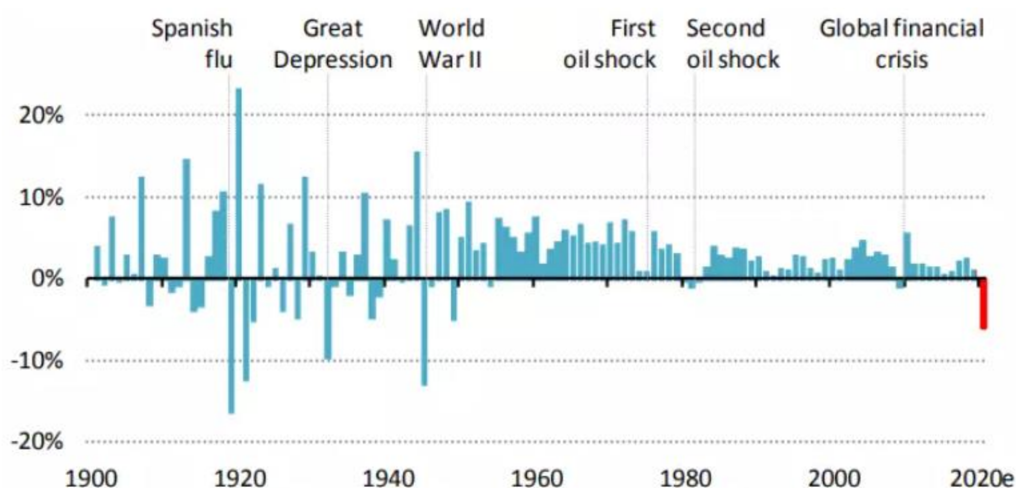
Policy & Economic report – Oil & Gas market

Economy in Focus

1. IEA prescribes a sustainable recovery roadmap for global economies

As more countries are now coming out of the lockdown and other containment measures taken against the outbreak of COVID-19, governments across the world are busy looking to inject life in their ailing economies. Under such circumstances it will be key to the governments to ensure economic growth while maintaining the environment. The big question is where should a country start in this direction. A recent report by IEA may have some answers.

Change in Global Primary Energy Demand



Source: IEA

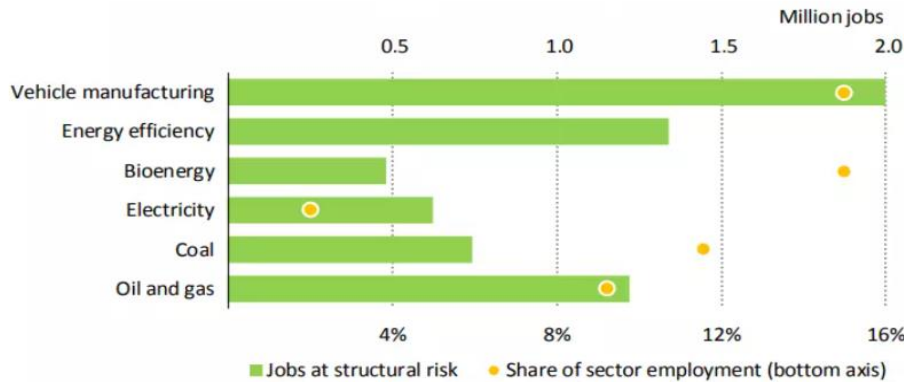
A Green Recovery

The IEA report estimates that well targeted policies and investment between 2021 and 2023 could boost global economic growth by almost 1.1 per cent a year. The IEA's Sustainable Recovery Plan can also save over 9 Million jobs per year and reduce GHG emissions by 4.5 Billion tonnes globally. The suggested measures will also accelerate the shift towards UN's Sustainable Development Goals, bringing clean cooking capabilities and electricity access to millions of people in low-income countries. To achieve this, an investment of USD 1 Trillion or 0.7 per cent of the global economy will be required. The IEA

suggested plan lays out the most cost-effective approaches based on individual country circumstances, existing energy projects and current market conditions.

Boosting the Job Market

The IEA report estimates that over 3 million people out of the total strength of 40 million people employed with the energy sector have either lost their jobs or are at high risk of doing so. Another 3 million jobs are affected in related industries.



Fossil fuels, bioenergy and vehicle manufacturing have the highest share of jobs at risk. Oil and gas, energy efficiency and vehicles have the largest gross number of jobs at risk.

COVID-19 has forced millions of people out of work. Image: IEA Sustainable Recovery Plan

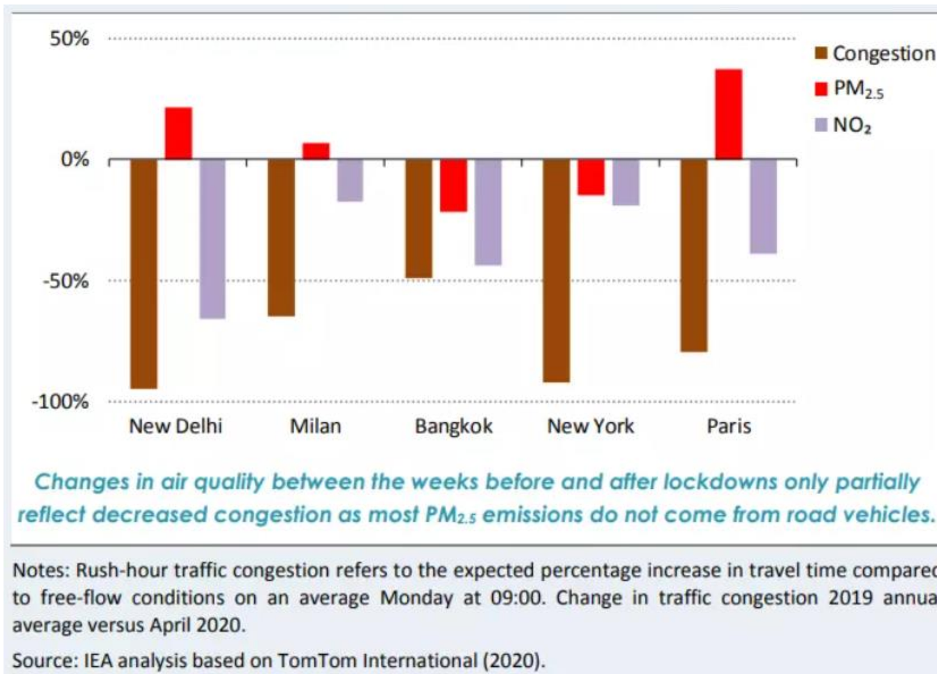
IEA suggests that a large number of jobs could be created through retrofitting buildings to improve energy efficiency, with another swathe coming from the electricity sector, particularly in grids and renewable energy. Energy-efficient parts of the manufacturing, food and textiles industries would also benefit from increased employment, along with low-carbon transport infrastructure and vehicles.

Ensuring energy security

The report points out that energy sector investments are set to fall by 20 per cent in 2020, raising grave concerns over energy security and transition to renewables. Investment in electricity grids, upgrading hydropower facilities and extending the life of nuclear plants would help in this regard by lowering the risk of outages and boosting flexibility. These improvements will also make power sector more resilient against natural disasters, severe weather and other threats.

Previous recoveries from economic slow-downs have been accompanied by rebounding global carbon dioxide emissions. The IEA plan has the potential to bringing emissions significantly down by 2023. The plan will also go a long way in improving air quality and reducing health risks around the world.

Change in Air Quality index and rush hour traffic congestion before and after Lockdowns

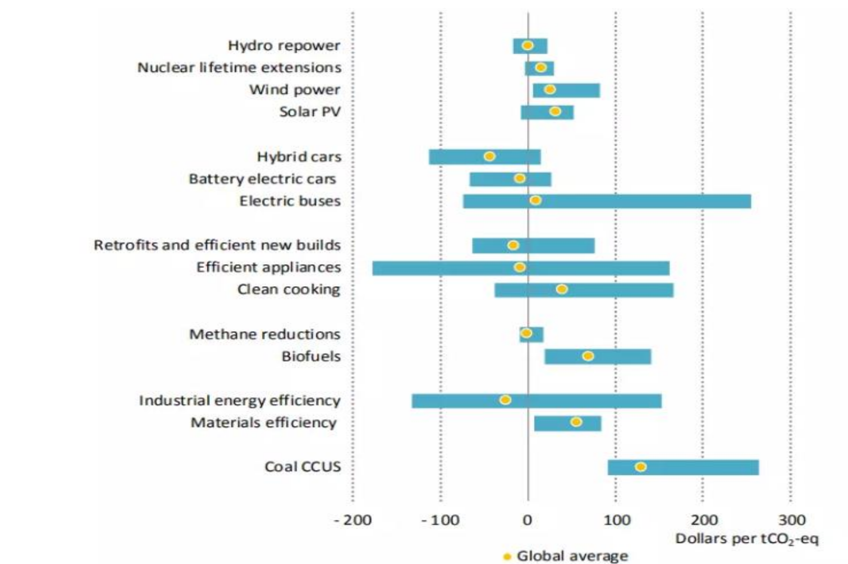


Notes: Rush-hour traffic congestion refers to the expected percentage increase in travel time compared to free-flow conditions on an average Monday at 09:00. Change in traffic congestion 2019 annual average versus April 2020.

Source: IEA analysis based on TomTom International (2020).

Through increased energy efficiency and lower carbon energy generation, the IEA plan has the potential to make 2019 the "definitive peak" in global emissions, putting us on a path to achieve longer-term climate goals, including the Paris Agreement. Given the currently low oil and gas prices, the process of reforming inefficient fossil fuel subsidies could also be accelerated without overly hurting consumers.

GHG Abatement costs for selected measures



Note: CCUS = carbon capture, utilisation and storage; tCO_2–eq = tonnes of carbon-dioxide equivalent.

Ways to reduce carbon emissions

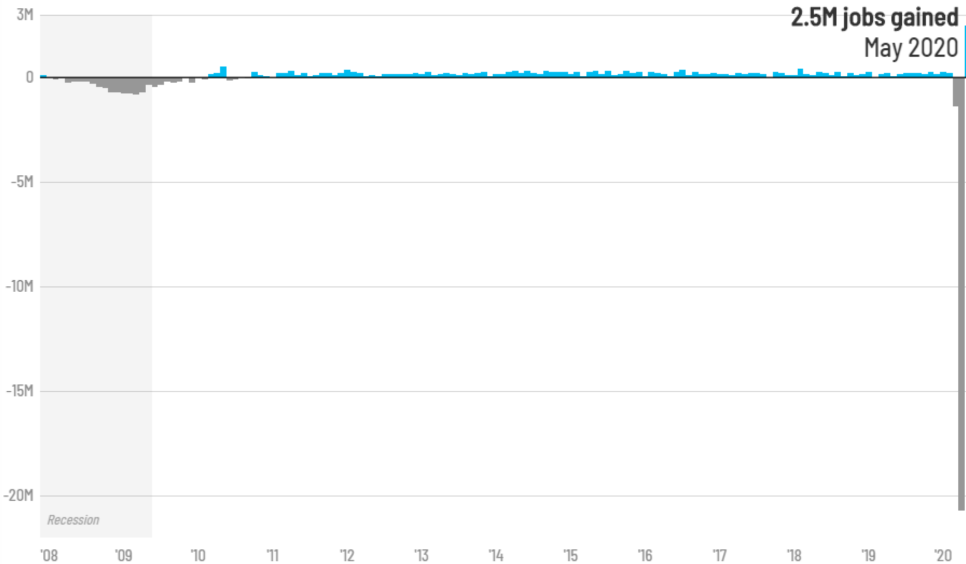
Image: IEA Sustainable Recovery Plan

The governments need to focus on delivering resilient projects that could be brought online within a short duration. This also includes developing a pipeline of support for distressed industries such as the automotive sector. In this way, large amounts of private capital will also be mobilized alongside public funding.

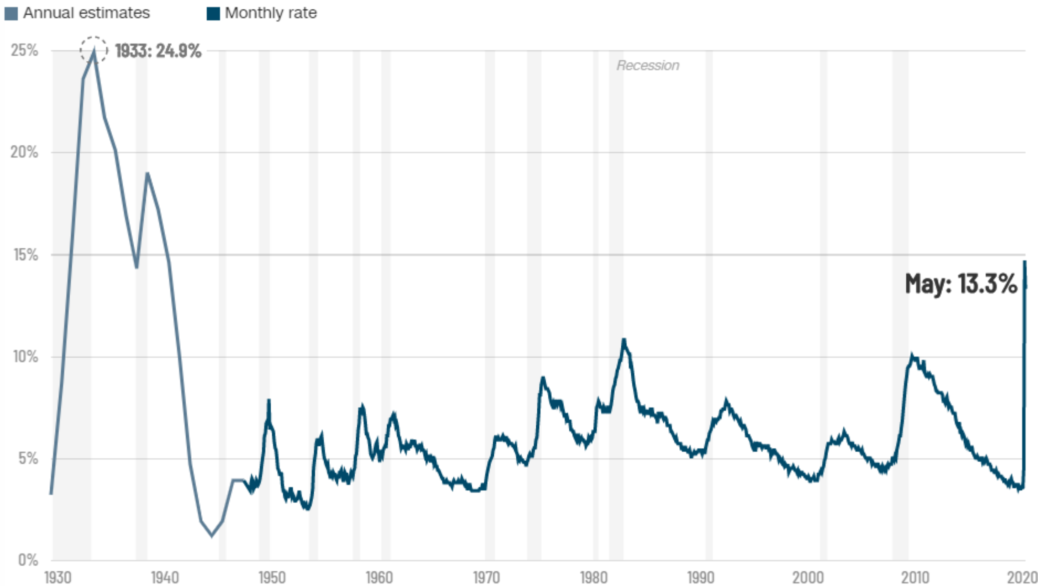
In this direction, maintaining the international cooperation will be key to maintain a seamless movement of goods and a robust supply chain network. IEA executive director Dr Fatih Birol has pointed out that “Governments have a once-in-a-lifetime opportunity to reboot their economies and bring a wave of new employment opportunities while accelerating the shift to a more resilient and cleaner energy future.”

2. US unemployment registered record drop in May; significant downside still exist

Latest data trend suggests that job market may be recovering well ahead of schedule. In the month of May, the unemployment rate in the US fall by 13.3 per cent as the economy gained 2.5 million jobs. This recorded the largest monthly rise in jobs since 1939, the year US Bureau of Labor Statistics started tracking the data series. The rebound of market after the massive losses seen in April, when a total of 20.7 million jobs were lost, was encouraging for the country. In May, unemployment rate jumped to 14.7 per cent due to wide spread lockdowns.



The Labour Department accepted that during the pandemic, millions of workers were misclassified as "employed but not at work," while they should have been classified under temporarily unemployed. Taking this into account unemployment rate for April was 19.2 per cent and 16.1 per cent in May.



How did experts go wrong?

The downturn effects due to the COVID induced lockdown are unprecedented. Since the shut-down was engineered, it was difficult for economists to predict the impact and its extent. While shutting down the economy might have been easy it was not clear how and when it would completely open up. Even after the buoyant May jobs report, there are plenty of unknowns, and economic forecasts could continue to fumble.

The May job report has been a sigh of relief for the otherwise troubled economy. The huge recovery in employment has come as a surprise for many. Some economists are also considering the job report as the first green shoots of the reopened economy. The gradual reopening of the economy actually added new jobs. For example, jobs in the construction sector increased by 464,000 in May, gaining back half the number of jobs lost in April. Jobs also returned in retail, as well as education and health services which are counted together as one sector. Government jobs declined by 585,000. Employment in the healthcare sector were boosted by the re-opening of dentist clinics, this added another 244,800 jobs. Doctors and dentists offices were shut down for routine treatments during the height of the lockdown.

However, not all the jobs gained during May were full time positions. Part-time positions accounted for 2/5th of the total jobs added in May. Nearly 10.5 million people are working part-time for economic reasons, compared with 4.2 million in February. The employment-population ratio, which measures how much of the working age population is employed, rose 1.5 percentage points to 52.8 per cent. That comes after an 8.7 percentage point collapse in April -- when the ratio hit its lowest level since records

started in 1948. According to William W. Beach, commissioner of the Bureau of Labor Statistics "These improvements in the labor market reflected a limited resumption of economic activity that had been curtailed in March and April due to the coronavirus pandemic and efforts to contain it."

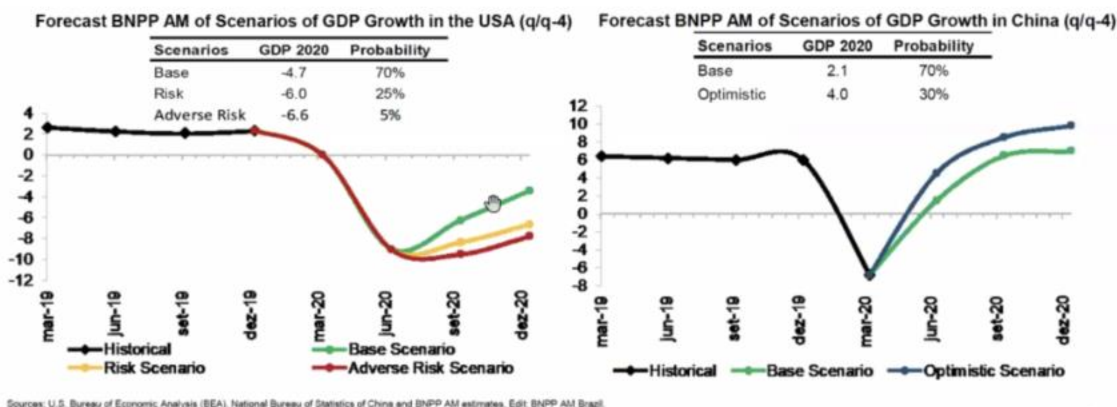
Government support still imperative

President Donald Trump hailed the improvement in employment numbers and called them "incredible". The President further pointed out "We're going to be back and we're opening our country..... And if you look at the lockdown governors ... the ones that are most energetic about opening, they are doing tremendous business and that's what these numbers are all about”.

In the month of March, the US Government has issued a USD 2 trillion rescue package to safeguard the people and the economy. The rescue package expanded unemployment benefits to help the country through this recession. Stimulus checks designed to get people spending and the economy back on its feet were just a one-off so far. Expanded unemployment benefits that added USD 600 per week in aid are set to end at the end of July. The government provided support to the ailing businesses through pay-check protection program, which required them to rehire a certain percentage of their workforces. However, there is a strong risk that a large part of these workers will be let go by the employers as the loan money runs out.

3. Top economists forecast for a gloomy outlook for Latin American economies

Two of the most prominent economists have predicted that the COVID-19 pandemic is set to have a lasting impact on the Latin American region. Tatiana Pinheiro, BNP Paribas Head of Economics, Brazil has predicted that the GDP in the region will contract by a 7.8 per cent in 2020 compared to 2019.

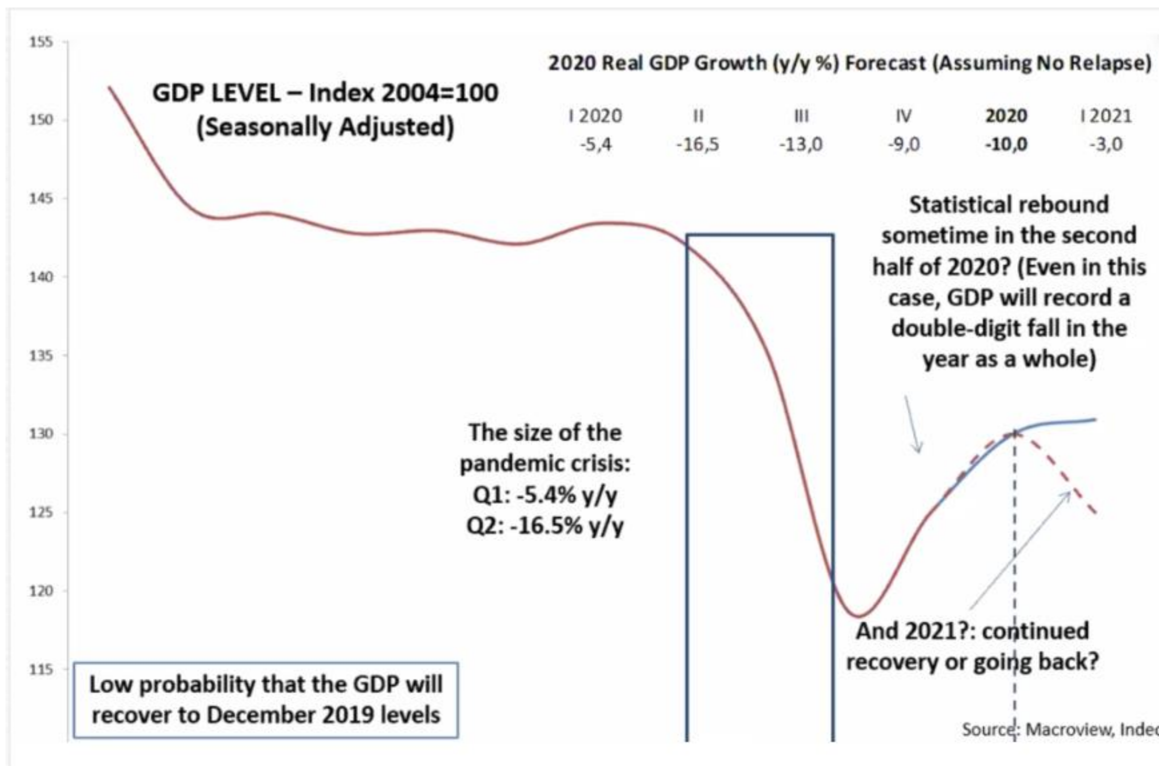


She said that the Chinese economy will witness a V-Shaped recovery from Coronavirus. While the Chinese economy fell sharply in February, the economy subsequently opened up and is now almost getting back on its growth trajectory by June. However, she feels that this will not be the case for Europe, the US or Latin America, which will all need more than two months to start seeing positive growth. The impact of COVID-19 will be long-lasting for the Latin American economy; it will not be V-shaped. She further said that the Latin American region will see some growth in 2021, but that will not be enough to offset the contraction seen during the lockdown.

Speaking of Brazil, she pointed out that "We are doing very badly because we did not [introduce] social distancing enough to contain the disease, but enough was done to produce a collapse of economic activity." She further pointed out that Brazil's currency performance is highly volatile, affecting consumer price perceptions of the country's duty free sector. "The exchange rate in Brazil is what we would call high beta," Pinheiro explained. This means that the currency rate variation is more significant in Brazil than its peers. When the international environment is good, the appreciation of the Real is higher than other economies; once markets are in a bad mood, the depreciation of the Brazilian Real is bigger than other economies.

Economist Carlos Melconian, who served as President of Argentina's national bank from 2015-2017, noted that the extreme quarantine measures taken by the country has killed the economy. Argentina, which had imposed one of the most severe lockdowns in the world, is set to witness significant deterioration in the economic situation.

Argentinian GPD will continue to Shrink



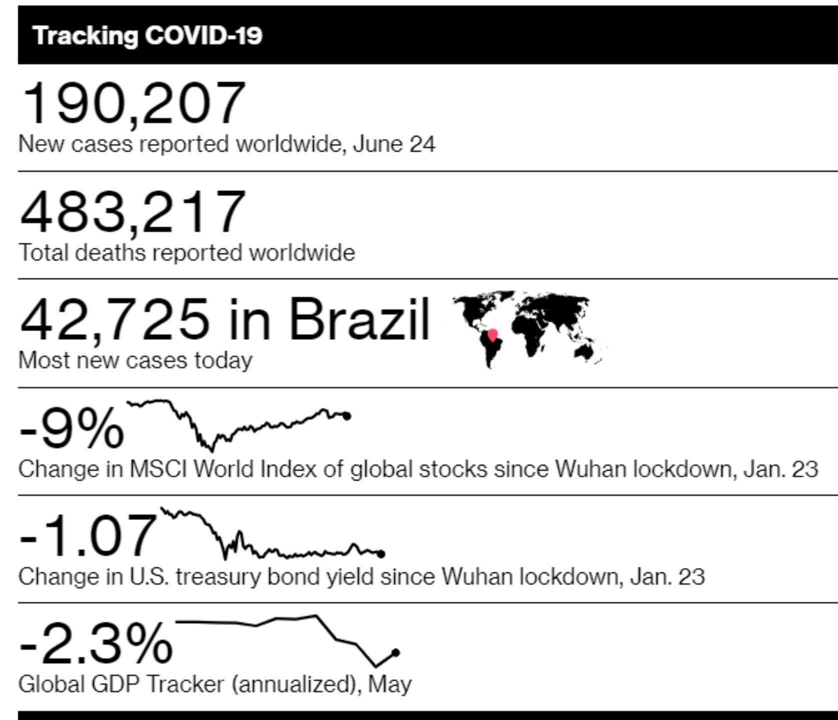
He further predicted that the COVID-19-induced recession in Argentina would be deeper than those the country experienced in the late 1980s and early 2000s. He added that the recovery will be difficult and different from the country's previous experiences.

4. European economies may soon be gasping for air, as overburdened Governments roll back support

Many restaurant owners in Portugal are nervously counting days until their businesses can stand on its own two feet again. Many of them are complaining that revenue is less than a third of what it was before the coronavirus kept tourists away and confined locals to their homes. Even with lockdown restrictions largely rolled back, customers have stayed away, reflecting the slow pace of recovery across Europe.

Unless that changes soon, thousands of restaurant owners will be in trouble. Portugal plans to stop its so-called "simplified layoff" program, which along with similar government programs being run across Europe has helped against job losses and paying part of the compensation for staff unable to work.

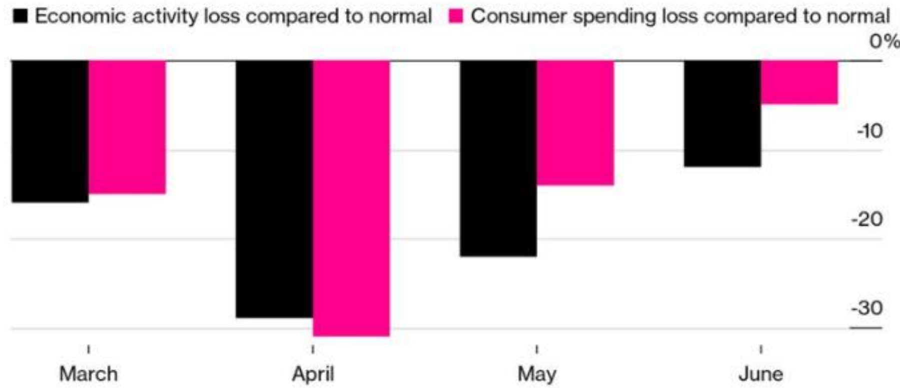
The cliff edge for firms and workers in Portugal echoes those looming over much of Europe. In the coming few months most emergency relief programmes being run in the continent will expire, putting the economy at the risk of being hit by a second wave.



Source: Bloomberg

Many restaurant owners feel that the layoff measure has to continue or restaurants will be forced to dismiss workers. After July, the Portuguese government plans to transition to other measures that include incentives for companies to keep jobs, but the impact is uncertain. Governments elsewhere are also aware of the danger. Many Governments are customizing programs rather than shutting them off completely. Some others are trying to extend support further despite the pressure on budgets. France has outlined plans for a new jobs protection scheme that could run for up to two years.

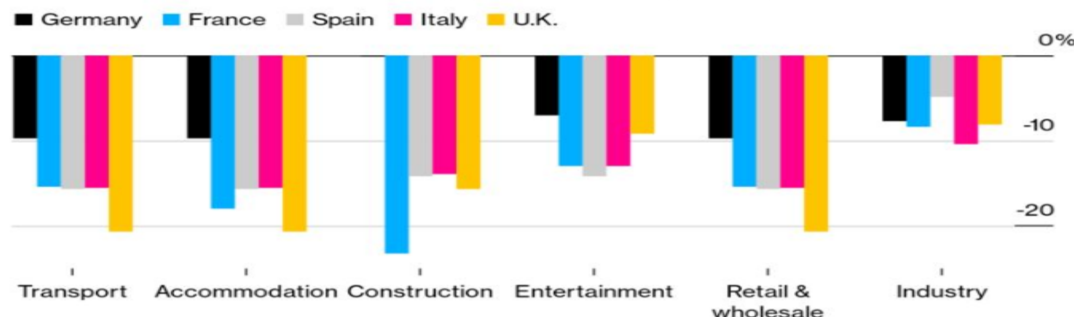
However, these measures may not be sufficient as demand across the continent is well below its pre-crisis levels, and perhaps unlikely to be fully restored any time soon. Figures from France's statistics office, show activity in Europe's second-largest economy still more than 10 per cent below normal.



For smaller companies, which operate on limited cash reserves and razor-tight margins, a 10 per cent lower demand may mean the difference between survival and closure. Closure will lead to job losses, and a negative spiral of rising unemployment and falling demand, all of which is bad news for already battered economies and strained public coffers.

Governments have already rolled out costly support schemes, and have emptied their pockets in the process. The furlough programs that supported more than 45 million workers during shutdowns are at the centre of the government's schemes. Many of those are, however, temporary, meaning they may only delay job losses.

Allianz SE warned in a report this month that 9 million of those people face an elevated risk of becoming unemployed in 2021 because of the fiscal policy cliff. In the U.K., a quarter of furloughed workers could lose their jobs as and when the government starts reducing subsidies.



The Bank of England has already warned that many benefitting from the furlough schemes may become permanent casualties of the crisis. Former Governor Mervyn King said last week that the U.K. program shouldn't end too early, but be maintained "right up until the point we see GDP very close to where it was before Covid-19."

Many European economies are expected to suffer double-digit slumps in output in 2020. The big hit will be this quarter, the peak of lockdown restrictions. That's almost certain to be followed by a steep rebound, but rocketing GDP numbers don't necessarily translate into a sustainable recovery.

Eduardo Zamacola, head of Spain's textile association, knows that early signs can be deceiving. After the containment measures were withdrawn, Spaniards started to shop and travel and businesses enjoyed a burst of activity. Mr. Zamacola fears that this sudden rise in consumer activity may soon fizzle out as there are looming uncertainties about the future.

Portugal

- Simplified layoff program ends July 31
- Replaced with measures including incentives for companies to keep jobs, policies on training and hiring unemployed workers
- Layoff measures remain in place after July for businesses closed by health authorities as well as those that haven't used it for the maximum three months allowed

U.K.

- Furlough program closes to new entrants on June 30
- From August, employers start to take on some of the burden, rising to 20% wages in October. Scheme closes Oct. 31
- The government might consider extending its programs

France

- From June 1, employers using furlough must finance 15% of the cost
- Companies and unions can negotiate new long-term furloughs for up to 2 years
- Solidarity fund for entrepreneurs in worst-hit sectors extended to end 2020
- State-guaranteed loans due to be available until end 2020

Italy

- A ban on redundancies expires on Aug. 17
- Companies can get up to 18 weeks of furlough payments for workers, so some will run out as early as July
- Most tax payments are suspended until Sept. 16
- Suspension of loan and credit line payments for SMEs and professionals until Sept. 30
- Mortgage payments can be suspended for up to 18 months (but in most cases 6 months)

Bloomberg

Spain

- From June 1, employers using the furlough program have to finance 30% of the main employee costs for those who've returned to work and 55% for those still suspended
- The difference is intended to encourage employers to bring more employees back to work
- Program expires on June 30, though government is in talks about an extension to Sept. 30
- Companies can borrow through the government's loan guarantee fund through Sept. 30 and officials are considering increasing the size of the fund

Bloomberg

To help economies back on their feet, some countries are betting traditional fiscal stimulus can spark a rebound. Germany is rolling out a EUR 130 billion (USD 147 billion) spending package after earlier unleashing more than 1.2 trillion Euros to stabilize its economy, Europe's largest. Chancellor Angela Merkel's government has vowed to spend whatever it takes to get the country growing again, including extending its renowned Kurzarbeit wage-support program. After years of German budget surpluses that's been welcomed by other nations, but the country is a rare exception in Europe. Most of its peers face stressed finances.

The European Central Bank is keeping investor concerns about ballooning national debt at bay with huge bond-buying in the euro zone, and the European Union plans to back that up with a 750 billion-euro fiscal package.

Such support gives countries the scope to dig even deeper. Italy has extended its furlough programs to 18 weeks from 14 weeks. The European Government is also planning to stretch its finances with another EUR 10 billion in stimulus, even though the nation's debt ratio looks set to top 150 per cent of GDP this year.

5. With proper management of financial sector, India set to grow at 8.0 per cent in FY'21

The Indian economy, after contracting in the current fiscal year, has been forecasted to rebound in FY-21 with a growth rate of over 8.0 per cent, provided it can check the present deterioration in country's financial sector. The pandemic has led to shrinking of the Indian economy by almost 5 per cent according to Fitch, the global rating agency. Fitch in a recent report noted that after the global crisis, India's GDP growth is likely to return to higher levels than 'BBB' category peers, provided it avoids

further deterioration in financial sector health as a result of the pandemic. Fitch expects the country's economy to grow at rate of 8.0 per cent in the coming fiscal.

On 24 March, India instituted the world's largest lockdown against COVID-19 and the lockdown was extended multiple times since before unlocking started in June. To support the economy, Reserve Bank of India (RBI) has eased monetary policy by cutting policy rates and providing liquidity through long-term repo operations. Prudential requirements for banks have also been eased to free up liquidity for lending. Fitch highlighted that the fiscal stimulus measures announced by the Government, amounting to 10 per cent of GDP. While the fiscal component of about 1 per cent of GDP is significantly less than many of India's peers.

General government debt already stood at 70 per cent of GDP in 2019-20, well above the 'BBB' rating median of 42 per cent. India's ratio of public debt/GDP is expected to rise to 84 per cent of GDP in 2020-21 – up from a forecast of 71 per cent when Fitch Ratings affirmed the 'BBB-' rating in December 2019. The agency has clarified that this is based on the expectation of slower economic growth in FY21 and wider fiscal deficits, assuming that the government's fiscal response remains restrained. The country's credit profile is strengthened by relative external resilience due to better foreign reserve buffers. However, the agency has warned that factors such as weakness by some lagging structural factors, including governance indicators and GDP per capita may dampen the growth. Listing positives for India, Fitch Ratings said there was greater confidence in a sustained reduction in general government debt over the medium term to a level closer to the 'BBB' peer median. Further, there is also a strong possibility of higher sustained investment and growth rates without macroeconomic imbalance such as from the implementation of structural reforms.

The agency has listed a material increase in the fiscal deficit, causing the gross general government debt/GDP ratio to be placed on a sustained upward trajectory as a major negative for the major negative. The agency has listed the policy changes that lead to high inflation and contribute to widening current account deficit as the major factors that would increase the risk of external funding stress.

6. Investment volume worst hit in India among APAC countries; region on the path to recovery as more economies open up

India's commercial investment transaction volume has shrunk by over 94 per cent in the last five months of 2020. According to a recent report, India has performed worst among the Asia – Pacific countries on this metric.

The report published by consultant Knight Frank suggests that commercial investment transactions, which include investment of big funds and HNIs in commercial properties reduced by USD 44.1 Billion or 52 per cent during the last five years. According to the report, India, Hong Kong and Singapore have recorded 94 per cent, 83 per cent and 88 per cent YoY decline over the last five months. During this period, China witnessed 34 per cent YoY decline. The report further shows that many commercial deals were cancelled or postponed in Mumbai, Delhi, Bangalore, Jakarta, Singapore and Tokyo. Neil Brookes, head of capital markets, Asia Pacific of Knight Frank pointed out that "As more companies and occupiers

look to release capital, they can direct investments back into their core businesses. We expect to see more sale and leaseback opportunities come to the market."

The report further indicates that real estate activities have picked up in the APAC region as more countries in the region are opening up after the lockdown. Markets that returned to relative normality earliest are witnessing the most activity, with Mainland China, South Korea, Taiwan, and New Zealand leading the way. Commenting on the findings of the report, Shishir Baijal, Chairman and Managing Director, Knight Frank India pointed out that "All segments of real estate are impacted. Though at different paces for different segments, the sector will recover in tandem with the economic revival of the country." He further suggested that despite the present upheaval, there are ample capital seeking opportunities in the APAC region especially in investment safe haven such as Australia and Singapore. The report highlighted that the leasing activities have fallen sharply in the APAC region while rents have remained stable.

7. Development model with focus on the bottom of the pyramid will make the Indian economy more resilient

COVID-19 and the resulting economic slowdown have highlighted the need for an economic model that places the people at the bottom of the pyramid at the Centre of all policy making. A recent report published by think tanks, Council on Energy, Environment and Water, and the National Institute of Public Finance and Policy titled "Jobs, Growth and Sustainability: A New Social Contract for India's Recovery" underlines the need to reorient its economic structure to make it much more people-centric and inclusive. The report advocates that the country should create models where its economy is more resilient to climatic, health and humanitarian risks that can have catastrophic consequences and choke the economy, imposing far greater costs than the investment needed to increase resilience

The outbreak of COVID-19 and the blow of a nationwide shut down has pushed Asia's third-largest economy toward its first full-year contraction in more than four decades. A recent study by IMF has suggested that the Indian economy may contract by as much as 4.5 per cent this fiscal year. The lockdown has left businesses ailing and put huge number of people out of their jobs. Among the worst hit due to the COVID induced lockdown were the migrant workers who were left stranded without income, while millions more fled to their villages, reluctant to return to the cities

The Indian Government has unveiled a support package worth USD 277 billion to help cushion the blow, including easing access to credit for small businesses and offering cheap loans to workers and farmers. The report has further advocated for protective measures for small businesses from predatory practices by some trading partners. The report claims that such a move will prevent the collapse of domestic industries, especially those in ferrous and non-ferrous metals, textiles, pharmaceuticals, solar cells and modules, and heavy machinery. The micro small and medium enterprises account for 90 per cent of the country's industrial units and employ more than 40 per cent of India's workforce.

The report also recommends for starting state supported canteens that could serve the 30 odd million migrant workers. The report claims that such canteens would cost INR 265 million will also generate 1.2 million jobs and drive demand for diversification of food production. Report also suggests that an

environment and health de-risking mission to focus on the threat posed by climate change, air pollution, chemicals, and antimicrobial resistance needs to be launched by the Government. The report further goes on to point out that "The biggest threats are no longer states, nor non-state terrorist groups, the gravest concerns are about tail-end risks, which have low probability but can be catastrophic."

Special Feature

8. A glimpse at international stimulus packages: USA;

US President Donald Trump signed the USD 2 trillion stimulus package to provide a boost to the US economy due to the COVID inflicted lockdown on 27 March, 2020.

The USD 2 trillion stimulus package is the largest emergency aid package in the history of the United States. The announced package is set to prove a massive financial injection into the struggling economy with targeted provisions at helping American workers, small businesses and industries grappling with the economic disruption.

The bill was passed in both the US senate and the House of Representatives with overwhelming majority. Below are some of the highlights of the USD 2 Trillion stimulus package:

a. **Direct Cash Transfers:**
   This plan envisages providing USD 1200 to single Americans, USD 2400 to married couples and an additional USD 500 to parents with each child under the age of 17. However, the payments would start to phase out for individuals with adjusted gross incomes of more than USD 75,000, and those making more than USD 99,000 would not qualify at all. The thresholds are doubled for couples.

b. **Deferment of Loan Payments for Students:**
   The department of education has decided to suspend the payment of student education loans without penalty till 30 September.

c. **Postponement of Delayed ID Deadline:**
   The deadline to obtain a REAL ID, federally mandated identification that will be needed for passengers to board aircraft, will be extended until at least September 2021 -- a year past the current deadline

d. **Unprecedented Unemployment Benefits:**
   Marking a historic expansion of unemployment benefits, the US Government will provide jobless workers an extra USD 600 a week for four months above the benefits provided by State Governments. This support will vary from USD 200 – 550 per week based on the state. The package also calls for a new pandemic unemployment assistance program, which would provide jobless benefits to those who are unemployed, partially unemployed or unable to work because of the virus and don't qualify for traditional benefits. This will include independent contractors

and the self-employed, who typically don't qualify for such assistance. This will also include gig economy workers who are presently not eligible in many states.

e. **Lending Programme Worth USD 500 Billion**
The Treasury Department can provide USD 500 billion in loans, loan guarantees and investments. This typically includes USD 25 Billion for passenger air carriers, USD 4 Billion for cargo air carriers, USD 17 Billion for businesses working on national security. The remaining USD 454 Billion will be used to provide loans to businesses, states and municipalities. The businesses receiving the loans, however, may not be able to issue dividends a year after the loan has been paid. The loans also cannot last longer than five years.

f. **Package Provides Support to the Airline Industry**
The package offers USD 32 Billion to support the debilitated airline industry in grants for wages and benefits. This includes USD 25 Billion for passenger airlines, USD 4 billion for cargo airlines, and USD 3 billion for industry contractors, such as those who handle catering, baggage, ticketing, and aircraft cleaning.

g. **Billions to revamp medical services**
The package provides USD 117 Billion to hospitals. The American Hospitals Association has already called it a very important step. The bill also calls for USD 100 Billion public health and social emergency fund to reimburse providers for expenses and lost revenues related to the coronavirus pandemic. Around USD 65 Billion will go to the hospitals while the rest will be allocated to Doctors, Nurses and other support staff. The legislation also boosts reimbursements by 20 per cent for treating Medicare patients with coronavirus.

h. **Something for contractors and Gig Workers**
The package makes contract workers and gig workers eligible for the Government aid. The language could provide additional certainty to millions of part-time workers who drive for Uber or deliver for Amazon, in what has become a major part of the digital economy.

i. **Safeguard against foreclosure and Evictions**
If anyone is facing a financial hardship from coronavirus, the package allows for such person to be given a forbearance on a federally backed mortgage loan of up to 60 days, which can be extended for four periods of 30 days each.

j. **More Assistance for Food Program**
The package provides for USD 450 Million the Emergency Food Assistance Program. The programme supplies to food banks and is expected to see a rise in clients and job losses increase. Of the package, some USD 350 Billion will be used for buying food while another USD 100 Billion will go for distribution.

The analysis given above has been compiled from various sources.

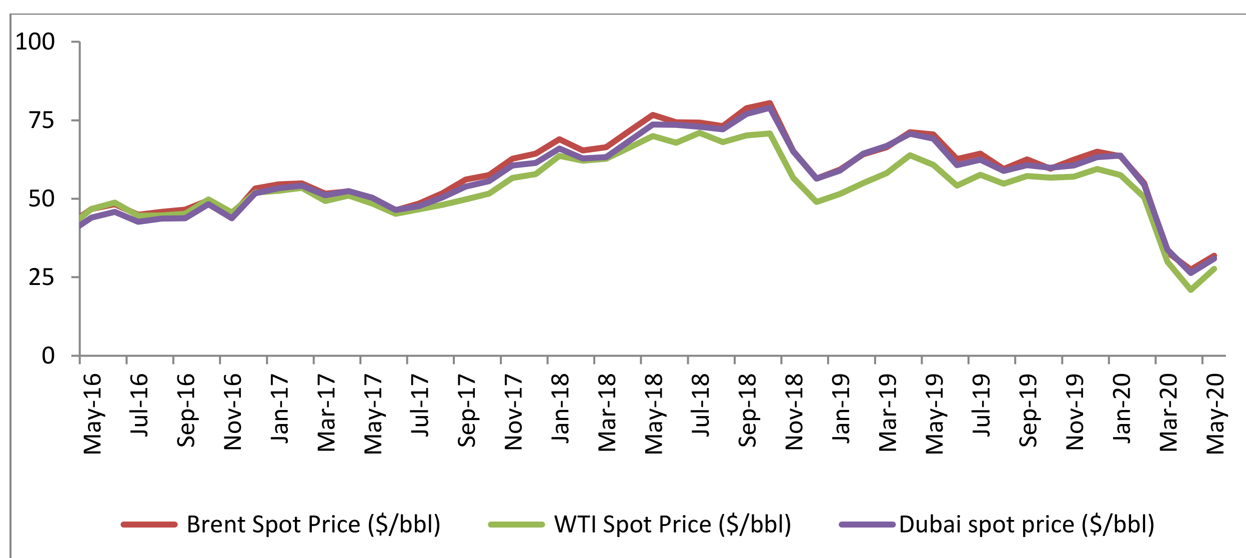
Oil & Gas Market

Crude oil price

Crude prices recovered in the month of May as all major benchmarks almost doubled from their price in the month of March. OPEC and major producers started their production cuts from 1st of May and over the time; millions of barrels of oil were slashed to tighten the supply market. As expected from the producers, the production cut started showing results as the price started rebounding. The deal between the OPEC nations and their allies has resulted in removal of close to 10 million barrels of surplus oil from the market.

Average Brent, WTI and Dubai basket crude price increased by 16.1 %, 31.8% and 17.3 % respectively in the month of May.

Figure 1: Benchmark price of Brent, WTI and Dubai crude



Source: WORLD BANK

- Brent crude price averaged $ 31.85 per bbl in May 2020, up by 16.1% on a month on month (MoM) but down by 54.8 % and year on year (YoY) basis, respectively.
- WTI crude price averaged $ 27.64 per bbl in May 2020, up by 31.8% on a month on month (MoM) but down by 54.6 % and year on year (YoY) basis, respectively.
- Dubai crude price averaged $ 30.90 per bbl in May 2020, up by 17.3% on a month on month (MoM) but down by 55.3 % and year on year (YoY) basis, respectively.

Table 1: Crude oil price in May, 2020

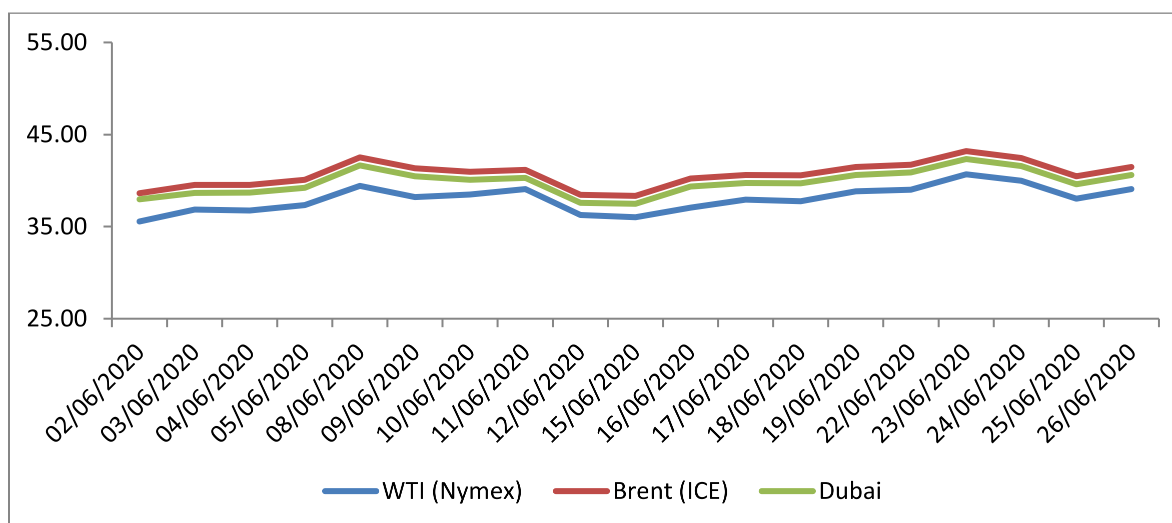
Crude oil	Price ($/bbl) in May 2020	MoM (%) change	YoY (%) change
Brent	31.85	16.1%	-54.8%
WTI	27.64	31.8%	-54.6%
Dubai	30.90	17.3%	-55.3%

- *Source: WORLD BANK*

Oil Market on recovery path, surpasses $40 mark in June

Crude prices moved upwards in the month of June, towards recovery as all major benchmarks touched USD 40 mark for the first time since March. A combined production cut of crude oil by 10 mb/d in June by OPEC and other major producers, led to price recovering in the month of June. Production cuts removed a part of surplus barrels of crude oil from the market and thereby leading to reduction in supply and demand gap. With production cuts planned for long time, the market is likely to move towards better balance.

Figure 2: Crude oil price in June 2020



- *Source: EIA, Oilprice.com, PPAC*

Global demand for crude oil recovered as relaxations came in place across various countries in an attempt to boost the economy. Increase in road transportation in China, Japan, South Korea, India, Europe and in the North America has given a positive outlook for crude oil demand.

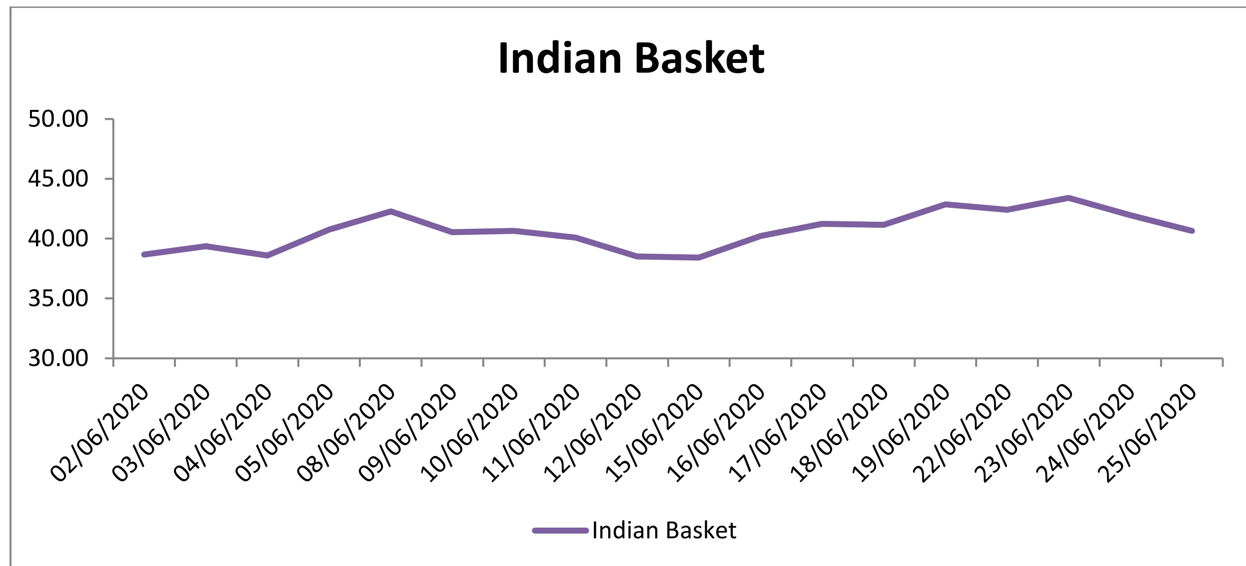
OPEC and allies met on June 6th and agreed to extend production cut to balance the market. Larger output cuts outside of OPEC will come from US and Russia.

Average Brent, WTI and Dubai basket crude prices went up by 27.32 %, 37.05 % and 28.48 % respectively from their May prices.

Indian Basket Crude oil price

- The Indian basket of Crude Oil represents a derived basket comprising of Sour grade (Oman & Dubai average) and Sweet grade (Brent Dated) of Crude oil processed in Indian refineries in the ratio of 74.77:25.23 during 2017-18.

Figure 3: Indian crude oil basket price in $ per bbl



Source: Petroleum Planning & Analysis Cell

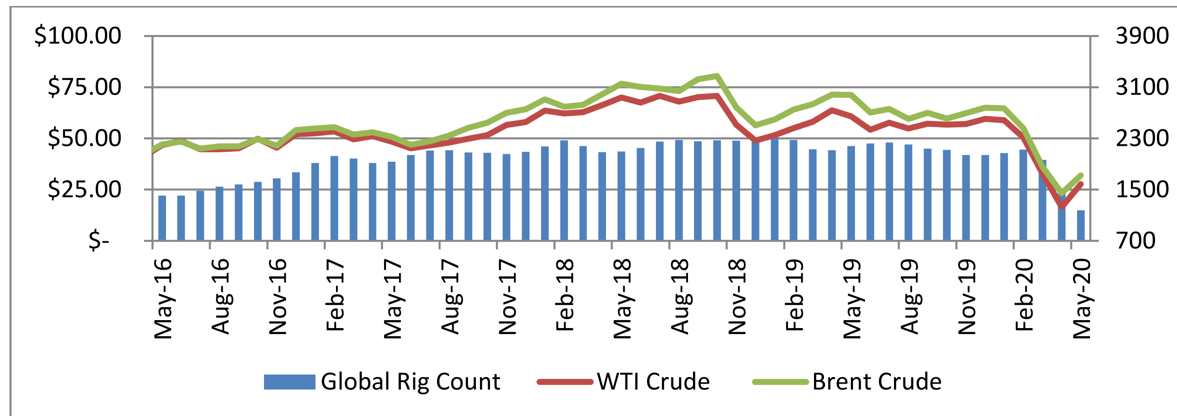
- Indian crude oil benchmark prices saw an increase as the global benchmarks used as its reference went up.
- Indian crude basket price averaged $40.49 per barrel in June, up by 40.15 % on Month on Month (M-o-M) but down by 34.70 % on a year on year (Y-o-Y) basis, respectively.

Upstream activity & Rig count

Global rig count

Rig count represents the total number of active drilling rigs in the world. Demand for drilling rig is highly dependent on crude oil price. When the oil price increases, demand for exploration activity increases, resulting in the increase in rig count. A lower oil price could trim the exploration budget of the oil companies, thereby reducing the demand for drilling rig.

Figure 4 Global Rig Count vs. Crude Prices



Source: Baker Hughes

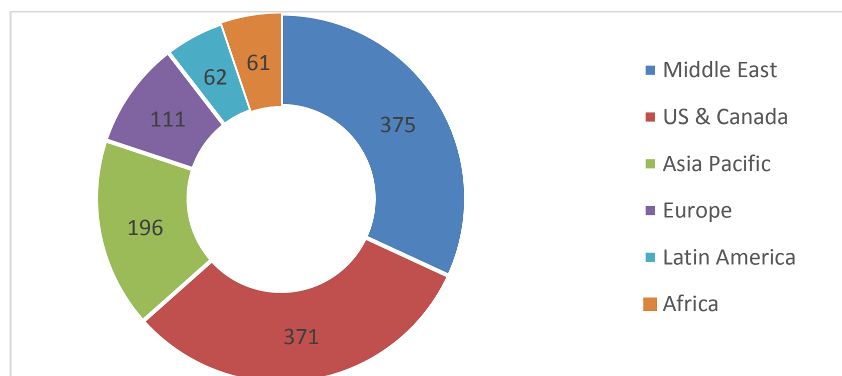
In May 2020, global drilling rig count declined by 338 from April 2020 and stood at 1,176. Onshore rig count decreased by 301 and offshore rig count went down by 37. Major chunk of the reduction in rig counts came from the United States as the rig count in May went down by 218 following previous month's decline of 206 rigs due to the low oil price. Companies across the globe cut down the drilling activities to keep cash flow going as the reduced demand for crude impacted the financials in large extent for the companies. A similar trend was reflected across all the regions namely Latin America, Pacific, Europe, Africa and in Middle East as the companies suspended drilling activities due to non-viability at low oil price environment. For the first time in recent year, North American rig count went below the Middle East rig count.

Table 2 : Global Drilling Rig Count

Rig Type	Count in May 2020	MoM (%) change	YoY (%) change
Land	966	-23.76%	-49.64%
Offshore	210	-14.98%	-20.45%
Total	1,176	-22.32%	-46.10%

Source: Baker Hughes

Figure 5 Geography-wise Rig count -May 2020



Source: Baker Hughes

Indian Drilling Rig Count

Indian drilling activity saw a 'V' recovery in the month of May as rig count sharply rebounded to reach 106 from April's count of 90. Recovering oil prices gave a momentum for companies to resume drilling activities in the month of May. On M-O-M basis, Indian rig count increased by 17.78% and on Y-O-Y basis, Indian rig count declined by 11.67 %. 66 were onshore rigs and the rest 40 were offshore rigs.

Figure 6 Indian Rig Count vs. Indian Basket Crude Price

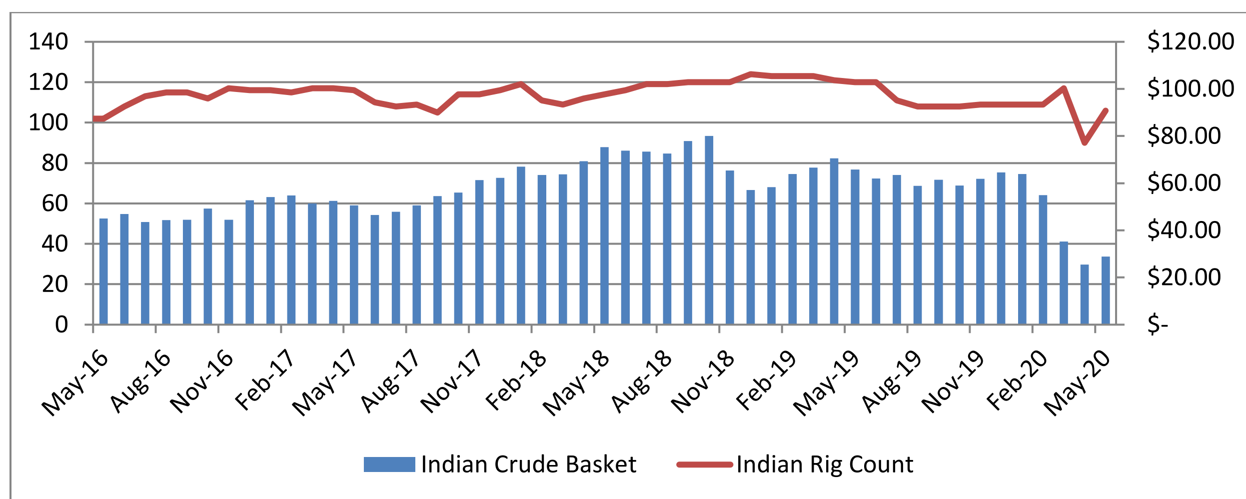


Table 3 : Indian Rig Count

Rig Type	Count in May 2020	MoM (%) change	YoY (%) change
Land	66	26.92%	-22.35%
Offshore	40	5.26%	14.29%
Total	106	17.78%	-11.67%

Source: Baker Hughes

Oil demand & supply

Preliminary data indicates that global oil supply decreased by 10.04 mb/d in May month on m-o-m to average 89.89 on comparison with the previous month. On Y-o-Y basis, oil supply was down by 9.18 mb/d as the OPEC nations and other major producers cut significant oil production to stabilize the market. Non-OPEC supply (including OPEC NGLs) went down by 3.74 mb/d m-o-m to average 65.69 mb/d in May 2020. Largest decline in non-OPEC oil supply comes from the US and Russia with a combined projected decline of more than 2.6mb/d followed by Canada, Oman, Azerbaijan, Norway and Mexico. Share of OPEC crude oil in total global production decreased by 3.6% to 26.9% in May compared to April 2020. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

World oil demand in 2020 is projected to decline significantly by 9.1 mb/d in 2020, unchanged from previous month's assessment. Global oil demand for the year is expected to average around 90.6mb/d.

Covid-19 pandemic has negatively impacted the economic momentum across the globe and eliminated the project oil demand growth in 2020. Lockdown in various likes particularly the US, Europe, India and the Middle East are projected to pull down the demand for gasoline and jet fuel as air travel activity and road transport in projected to significantly decline compared with the last years. A reduction in manufacturing sector with comparison to last year is likely to impact the demand for industrial fuel.

In the OECD region, oil demand is projected to decline by 5.2 mb/d compared with last year's oil consumption, following decline in the transportation sector in OECD Americas and Europe at the beginning of 2Q20. In the non-OECD region, oil demand is estimated to decline by 3.9 mb/d, a new high in decline for demand. Oil demand in all sub-regions, including China, Other Asia, Latin America and the Middle East, are expected to drop on y-o-y bases due to various containment methods taken by various governments to contain the further spread of COVID-19. The impact will be felt mainly in transportation and industrial fuels, which are likely to decline by a previously unforeseen amount.

Oil demand forecast for Q2 2020 will remain at 81.30 mb/d, unchanged from last month's forecast. Similarly forecast for Q3 2020 and Q4 2020 will remain at 92.28 mb/d and 96.30 mb/d respectively, unchanged from previous assessment.

Table 4: World Oil demand in mbpd	2019	1Q2020	2Q2020	3Q2020	4Q2020	2020	Growth	%
Total OECD	**47.91**	**45.30**	**34.87**	**44.37**	**46.25**	**42.71**	**-5.19**	**-10.84**
Dev. Countries	**33.08**	**31.62**	**29.46**	**30.62**	**31.60**	**30.83**	**-2.25**	**-4.84**
~ of which India	*4.84*	*4.74*	*3.90*	*3.94*	*4.83*	*4.35*	*-0.49*	*-10.07*
Other regions	**18.68**	**15.47**	**16.97**	**17.29**	**18.45**	**17.05**	**-1.63**	**-6.71**
~ of which China	13.07	10.27	12.55	12.37	13.28	12.12	-0.95	-7.29
Total world	**99.67**	**92.40**	**81.30**	**92.28**	**96.30**	**90.59**	**-9.07**	**-9.10**

Source: OPEC monthly report, June 2020
*Note: *2019 = Estimate and 2020 Forecast*

Global petroleum product prices

Refinery margins in Asia deteriorated further into negative territory due to regional surplus regional products and lack of overseas outlets in the region. Weakening fuel oil crack spreads impacted refinery configurations in Asia Extended restrictions in India, Japan and South East Asia contributed to lower demand. Premium of %5.0/b for Dubai basket registered in May vs WTI and Brent further added

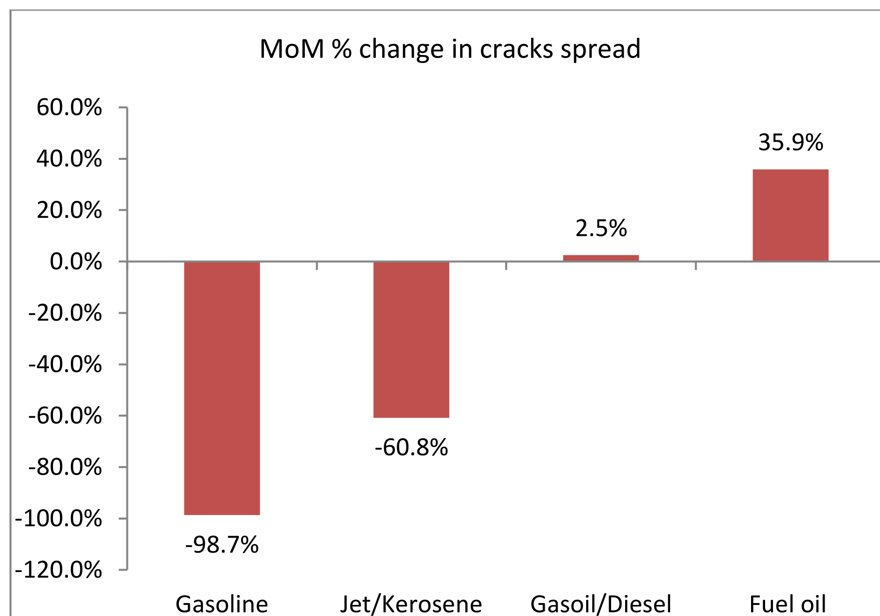
weakness in refining economic in the region. Refinery margins for Oman in Asia lost $1.63 on m-o-m to average minus $3.72/b in April and were lower by $7.69 on y-o-y basis. Refinery utilization rates in May averaged 79.57 % in selected Asian markets comprising of Japan, China, India and Singapore.

Prices in the Asian Gasoline-92 market went up by 58.7 % in the month of May. Asian gasoline 92 cracks spreads against Dubai increased as regional recovery was witnessed with driving activity in Japan and South Korea approaching pre-Covid levels. However travel remained subdued in India and Indonesia. Strong refinery yields limited the upside given the low sulfur residue's poor performance in recent times. Singapore Gasoline cracks averaged ȼ46 /b against Oman, up by $ 2.37 m-o-m but down by $4.35 y-o-y in May 2020.

Jet/Kerosene prices went up by 35.6 % in May due to the partial resumption of air services in the region. Jet/kerosene cracks spread against the Oman continued to decline due to disruptions in air travel on a larger scale. The Singapore jet/kerosene crack spread against Oman averaged minus $1.41/b, down by $1.43 m-o-m and by $13.32 y-o-y.

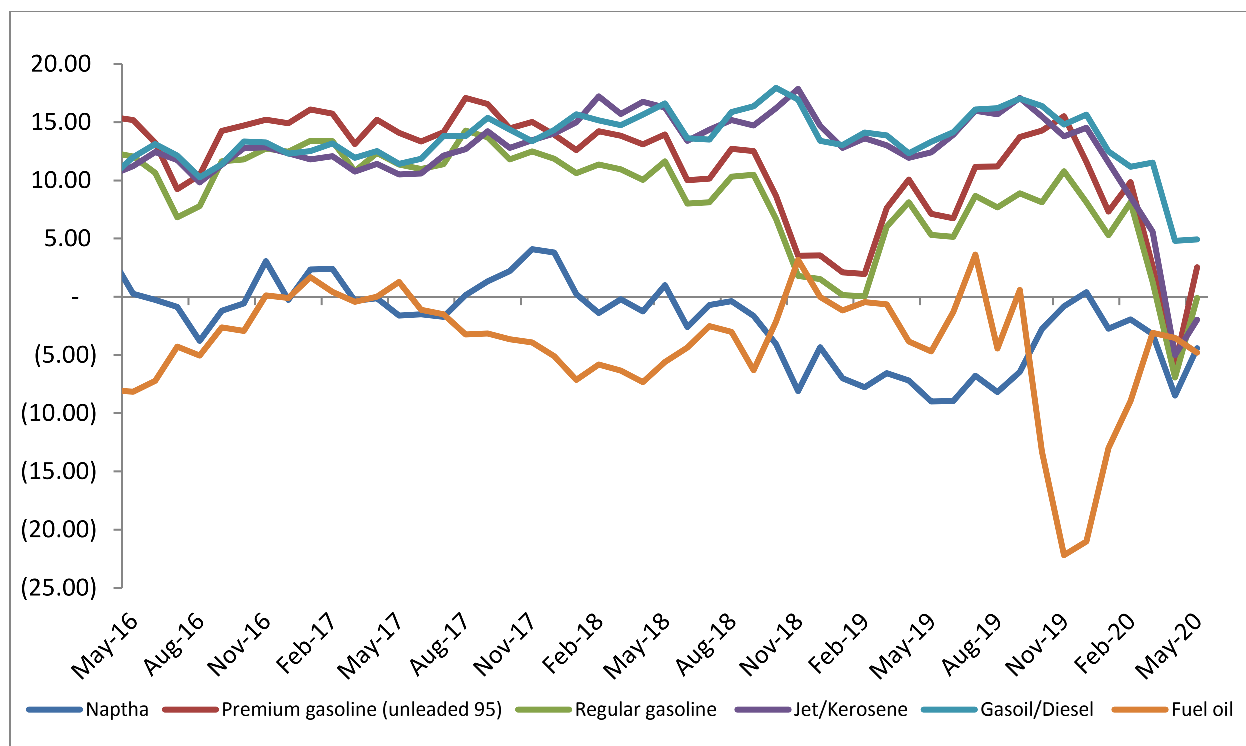
The Singapore gasoil crack decreased as consumption suffered losses in China after tolls on major roads were reintroduced. Though diesel balances looked positive in every region, higher freight rates did not help the cost of floating storage. Singapore gasoil crack spread against Oman averaged $3.69/b down by $3.83 m-o-m and by $9.11 y-o-y.

The Singapore fuel oil crack spread reversed sharply down followed by the upwards trend witnessed in previous four months. Higher crude price and freight rates led to the decline and slipped into negative territory. Singapore fuel oil cracks against Oman averaged minus $4.26, down by $5.74 m-o-m but by 95 ȼ y-o-y.



Source: OPEC monthly report

Figure 7: Product crack spreads vs. Dubai crude



Source: OPEC, FIPI

Table 5: Singapore FOB, refined product prices ($/bbl)

Products	Price ($/b) in May 2020	MoM (%) change	YoY (%) change
Naptha	**26.49**	48.3%	-56.0%
Premium gasoline (unleaded 95)	**33.44**	63.2%	-56.1%
Regular gasoline (unleaded 92)	**30.81**	58.7%	-58.6%
Jet/Kerosene	**28.94**	35.6%	-64.5%
Gasoil/Diesel (50 ppm)	**35.83**	15.0%	-56.5%
Fuel oil (180 cst 2.0% S)	**26.09**	14.4%	-59.5%
Fuel oil (380 cst 3.5% S)	**24.62**	10.8%	-60.7%

Source: OPEC

Petroleum products consumption in India

- May 2020 saw a tremendous recovery in consumption of petroleum products as the lockdown was relaxed and industrial activity picked up.
- Overall consumption was up by 47.5% in the month of May as compared to April 2020.
- LPG consumption increased by 8.7 % on M-o-M basis in April 2020.

- Opening of offices, markets, business centers across the nation due to the relaxations of lockdown increased the consumption of gasoline by whooping 81.8% on M-o-M basis from April.
- Diesel consumption increased by 69.1 % on M-o-M basis in the month of May as long distance trucking activity spiked.
- ATF saw an increase by 97.3% as domestic flights were resumed in scaled manner along with the selected international flights on 'Vande Bharat' mission.
- On yearly basis, petroleum product consumption was down by 21.3%,

Table 6: Petroleum products consumption in India, May 2020

Petroleum products	Consumption in '000 MT April 2020	MoM (%) change	YoY (%) change
LPG	2,317	8.7%	12.6%
Naphtha	1,084	26.1%	-0.1%
MS	1,769	81.8%	-35.3%
ATF	111	97.3%	-84.1%
HSD	5,495	69.1%	-29.4%
LDO	69	150.7%	40.5%
Lubricants & Greases	255	20.6%	-17.2%
FO & LSHS	479	61.1%	-3.4%
Bitumen	571	191.8%	-13.5%
Petroleum coke	1,523	34.2%	3.7%
Others	792	19.5%	-21.2%
TOTAL	14,646	47.5%	-21.3%

Source: PPAC

Natural Gas Price

Global gas prices at various hubs stood lower as compared to the month of April due to lower demand despite the increase in crude price.

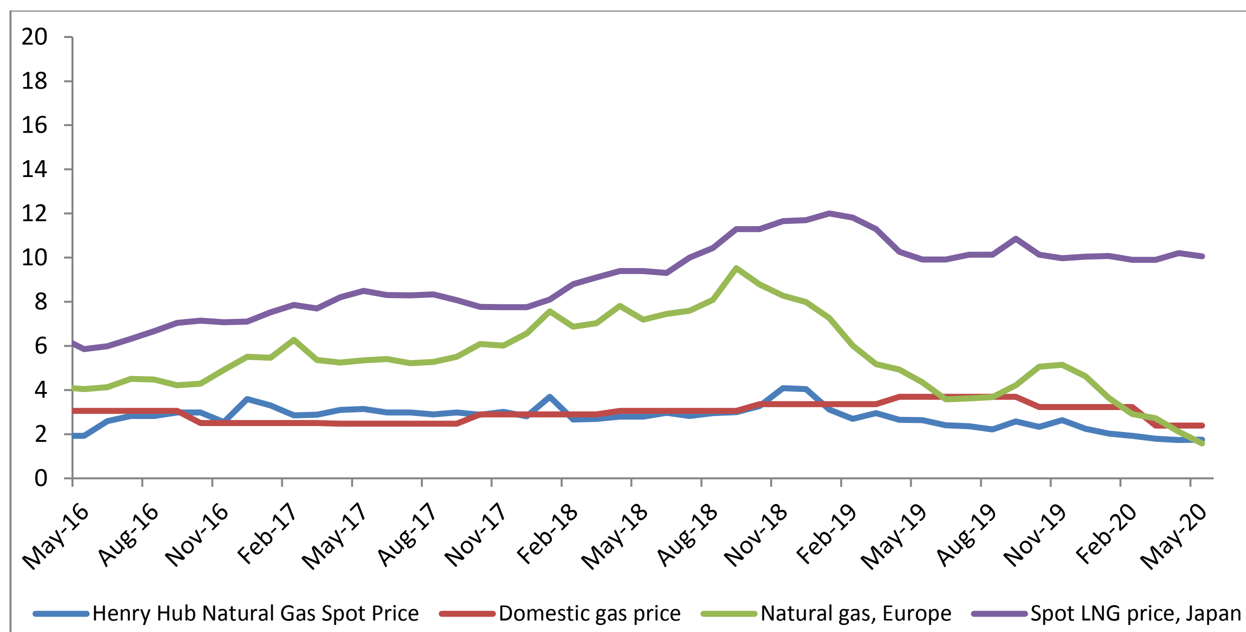
In May, natural gas price at the Henry Hub saw a minor change to reach $1.75/MMBtu. Covid-19 related closure affecting US electricity demand and decline in manufacturing activities has impacted the demand for natural gas in the US.

Natural gas prices in Europe fell by around 25% in May 2020 following a 22% fall in the previous month. Demand for gas fell to record low levels as the region is still reeling under the impact of Covid-19 pandemic. Decline in demand and record supply glut in major gas hubs in Europe has affected the Natural gas price. European gas storage facilities which steadily fill up over the summer in getting ready for winter are already half full after the record demand plunge in the region.

Asian spot LNG price went up by 20% in the month of May as demand saw a resurgence in the region While US LNG cargo deliveries to Europe were cancelled, countries like Malaysia and Australia also

trimmed their production due to lower demand. With normalcy returning in South korea and China, the demand for LNG has picked up. This led to increase in price of LNG cargoes in the region from $2.00/MMBTU to $2.40/MMBTU.

Figure 8: Global natural gas price trends



Source: EIA, WORLD BANK

Table 7: Gas price

Natural Gas	Price ($/MMBTU) in May 2020	MoM (%) change	YoY (%) change
India, Domestic gas price (Apr 20)	2.39	00.00 %	-35.23%
India, Gas price ceiling – difficult areas (Apr 20)	5.61	00.00 %	-39.8%
Henry Hub	1.75	0.6%	-33.7%
Natural Gas, Europe	1.58	-25.5%	-63.6%
Liquefied Natural Gas, Japan	10.06	-1.5%	1.5%

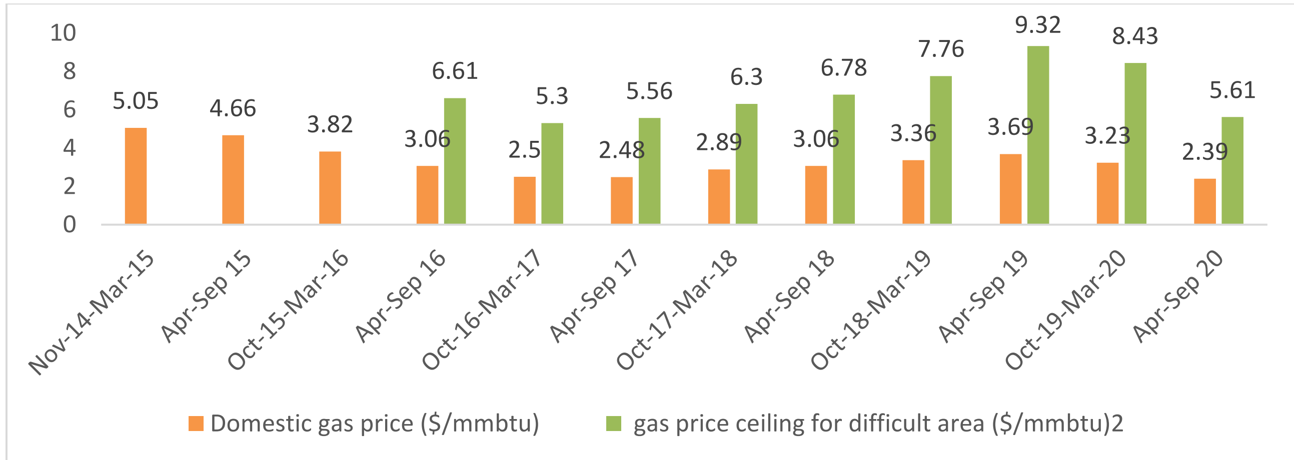
Source: EIA, PPAC, World Bank

Indian Gas market-

Domestic natural gas price which takes into account international benchmarks including Henry Hub, Alberta hub, Russia and UK National Balancing Point. With global gas price declining, India's latest gas price revision saw significant decline, thus capturing the international gas price trends. Domestic gas price for April 2020 to September 2020 is $2.39 per MMBTU has decreased around 35.23 % as compared to 2019. Gas price for difficult area has declined by 33.45 % on M-o-M basis and by 39.8% on Y-o-Y basis.

A notification was issued by MoP&NG on 21st March 2016, for marketing including pricing freedom for gas to be produced from discoveries in deep water, ultra-deep water, and high-pressure high temperature areas. For the April 2020 to September 2020 period, the price of gas from such areas has been notified at $5.61 per MMBTU, 33.45% down as compared to the last year.

Figure 9: Domestic natural gas price

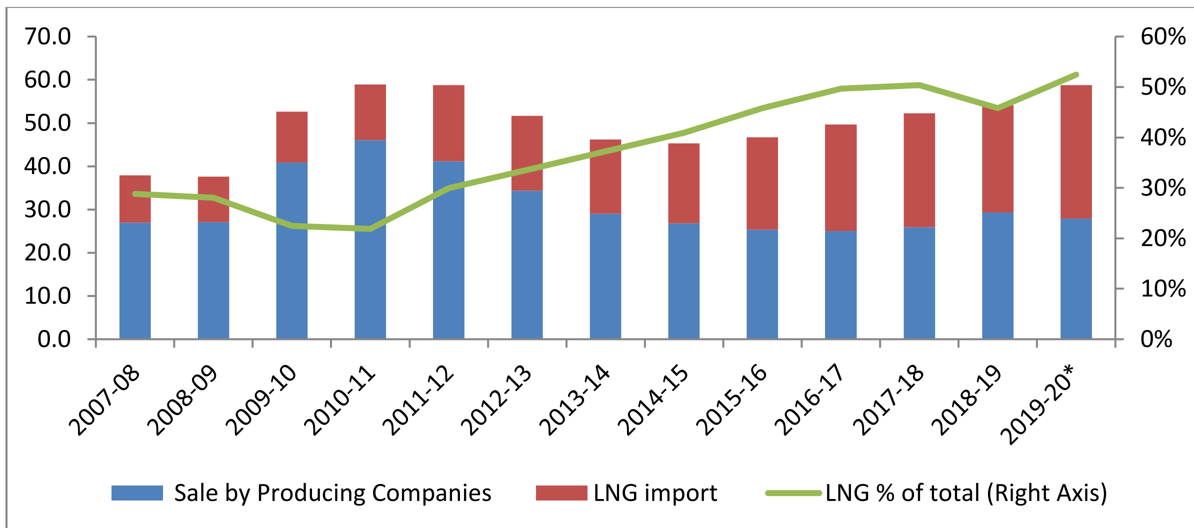


Source: PPAC

Natural gas production, consumption and import in India

- Natural gas constitutes for 5.8% of total energy primary mix of India
- Natural gas consumption in India has increased consistently over last five years.
- LNG imports have gone by up by 34.37 % over last five years.

Figure 10: Domestic natural gas consumption, domestic production and LNG import in BCM



Source: PPAC

1. Sale by producing companies includes internal consumption 2. 2019-20 data up to Feb 2020

Key developments in Oil & Gas sector during June 2020

- **Monthly Production Report for May, 2020**

Crude oil production during May, 2020 was 2602.40 TMT which is 3.46% lower than target and 7.06% lower when compared with May 2019. Cumulative crude oil production during April-May, 2020 was 5148.22 TMT which is 2.47% and 6.71% lower than target for the period and production during corresponding period of last year respectively.

Natural gas production during May, 2020 was 2300 MMSCM which is 11.32% lower than the monthly target and 16.02% lower when compared with May, 2019. Cumulative natural gas production during April-May, 2020 was 4461.33 MMSCM which is 11.11% and 17.30% lower than target for the period and production during corresponding period of last year respectively.

Crude Oil Processed during May, 2020 was 16347.13 TMT which is 22.88% lower than the target for the month and 24.24% lower when compared with May, 2019. Cumulative crude throughput during April-May, 2020 was 31092.30 TMT which is 22.47% and 26.46% lower than target for the period and crude throughput during corresponding period of last year respectively.

- **Shri Dharmendra Pradhan holds Talk with OPEC Secretary General, Calls for Responsible Steps to Achieve Global Energy Stability**

On 4th June, Minister of Petroleum and Natural Gas and Steel Shri Dharmendra Pradhan held a discussion through Video Conference with H.E. Dr. Mohammed Barkindo, Secretary General, Organization of the Petroleum Exporting Countries (OPEC).Discussions focused on current developments in global energy markets and crude oil price trends in the midst of Covid-19-induced challenges and in the run-up to the OPEC meetings later this month.

Minister Pradhan highlighted the need for producing and consuming countries to take responsible steps in the coming days to enable revival of fragile economic situation globally. He noted that gradual economic recovery is expected which will revive oil growth, and thus care should be taken not to upset the fragile balance between supply and demand achieved so far. Minister Pradhan stressed on OPEC’s role in stabilising oil markets, and agreed to work in close collaboration with OPEC countries for India’s energy security and also for global energy stability in the current challenging environment.

Mr. Barkindo invited Shri Pradhan to take part in the 8th OPEC International Seminar which will be held in Vienna on the 16th and 17th of June 2021.Both sides agreed to hold the India-OPEC High level Dialogue in July 2020 through DVC. Mr. Barkindo conveyed deep appreciation and admiration of India’s efforts in managing the pandemic and reviving the economic activities in the country.

- **Financing for Compressed Bio-Gas plants to be brought under Priority Sector Lending, says Shri Dharmendra Pradhan**

The Government is in the process of including Compressed Bio-Gas under Priority Sector Lending. Speaking at the online inauguration of the CBG Plant at Namakkal in Tamil Nadu and CBG Fuel Stations at various places in Tamil Nadu on 23rd June, the Petroleum and Natural Gas & Steel Minister Shri Dharmendra Pradhan said that this will provide ease in the financing of CBG Plants. He further added that Central Financial Assistance or Subsidy for setting up CBG plants has been extended to 2020-21 to promote new projects. Shri Pradhan said that CBG projects are viable and have an attractive rate of return for new entrepreneurs. He said "A new package for MSME shall also assist to fund CBG Plants across India. We are also exploring global funds to fund CBG projects."

The 'SATAT' (Sustainable Alternative Towards Affordable Transportation) scheme on CBG was launched on 1.10.2018 which envisages targeting production of 15 MMT of CBG from 5000 plants by 2023. The Government of India has taken various enabling steps to ensure the success of the SATAT scheme. Oil Marketing Companies have offered long term pricing on CBG to make projects bankable and have agreed to execute long term agreements on CBG. The Minister said that Bio-manure, an important by-product of CBG Plants, is also in the process of being included in Fertilizer Control Order 1985. This will make it easier to market and provide an opportunity for organic farming across the country as the 5000 CBG Plants are expected to produce 50 MMT Biomanure.

On the CBG potential of Tamil Nadu from existing waste and biomass sources, Shri Pradhan said that utilizing about 2.4 MMTPA of it shall result in setting up of around 600 Plants across the State which would result in the investment of about Rs. 21,000 crore and direct employment potential of about 10,000. Regarding the 15 TPD capacity IOT Biogas Plant at Namakkal, state of the art Plant inaugurated today, the Minister said that CBG produced from the Plant can fuel more than 1000 vehicles per day in Salem – Namakkal region. The Biogas Plant shall also fuel 2 industries with green alternative fuel. Under SATAT scheme, IOT Biogas decided to divert part/full biogas production to Compressed Biogas (CBG) generation. The Compressed Biogas procured from IOT Biogas plant shall be sold through Retail Outlets (ROs) and Institutional Business (IB). This is the first time an alternative to natural gas is being sold by Oil Marketing Companies. The numbers are to increase manifold in the coming years. The Minister said that it is for the first time that we are inaugurating facilities that provide an environment friendly gaseous fuel from natural sources in Tamil Nadu, as regular CNG fuel stations are not yet available in this State.
Minister Novak briefed the Indian Minister on the recently signed OPEC+ agreement. Minister Pradhan welcomed the agreement as an important step in providing stability and predictability to the global energy markets, which is important for India as a consuming nation. The Russian Minister recognized and appreciated the role India plays as a major bilateral partner but also as a major demand driver of hydrocarbon consumption. Minister Pradhan emphasized that Indian economy will continue to be the demand centre for hydrocarbons.

- **Battery Swapping Facility Quick Interchange Service inaugurated in Chandigarh**

Shri V P Singh Badnore, Governor of Punjab-cum-Administrator, UT, Chandigarh, along with the Minister of Petroleum and Natural Gas & Steel Shri Dharmendra Pradhan inaugurated Battery Swapping Facility Quick Interchange Service (QIS) at Chandigarh on 26th June. Shri Tarun Kapoor, Secretary, Ministry of Petroleum & Natural Gas, Shri Sanjiv Singh, Chairman, Indian Oil, Officers of Ministry of Petroleum & Natural Gas, the Union Territory of Chandigarh, and IOCL were present in the ceremony, organized online. Battery swapping technology offers the best alternative to slow charging and helps the drivers to make optimum use of the operational hours. The battery swapping model is initially targeted at the commercial segment, i.e., electric autos, rickshaws and electric 2W also and the electric vehicle which is either factory fitted or retrofitted. Indian Oil has signed a non- binding Strategic cooperation document with M/s Sun Mobility to explore setting up of Energy infrastructure for Electric vehicle through Battery Swapping model across Indian Oil Retail outlets in select cities. Indian Oil intends running a Pilot and offering SMPLs (Smart Mobility Proprietary Solutions) to support and service vehicles comprising of e-rickshaws, e-karts and e-bikes, and e-auto rickshaws up to 20 to 25 quick interchange stations in select cities across India. Sun Mobility Pte Ltd. has plans to install 20 QIS across major towns covering New Delhi, Gurugram, Bengaluru, Chandigarh, Amritsar, others. The Pilot ROs – QIS have 14 Batteries, a touch screen for swapping preloaded cards and an electricity sub meter. These QIS will play a pivotal role in providing an alternative energy solution to the 3-wheeler segment and boosting India's economic growth. Rightly the initiative may bring a reform in the energy sector moving towards carbon neutral culture.

Speaking on the occasion, Shri Pradhan said, "I am happy that Indian Oil and Sun Mobility have collaborated to establish this facility as a pilot in the modern & beautiful city of Chandigarh." Calling for scaling up of EV ecosystem, he said, "We must leverage modern technology to enable electric mobility to scale up in India and make it more affordable."

- **Towards Enhancing India's Energy Security**

The Cabinet Committee on Economic Affairs, chaired by Prime Minister Shri Narendra Modi, has approved additional investment of US$ 121.27 million (about Rs.909 crore) by ONGC Videsh Ltd (OVL) towards further development of blocks A-1 and A-3 Blocks of Shwe oil & gas project in Myanmar. The first gas from the Shwe Project was received in July 2013 and plateau production was reached in December 2014. The Project has been generating positive cash flows since FY 2014-15.

The participation of Indian PSUs in oil & gas exploration and development projects in neighbouring countries is aligned with India's Act East Policy, and also part of India's strategy to develop Energy Bridges with its neighbours in addition to further strengthening India's energy security needs.

- **Gas Exchange: India’s Maiden Online Gas Trading Platform**

On 15th June 2020, Minister of Petroleum and Natural Gas & Steel Shri Dharmendra Pradhan launched India’s first nationwide online delivery-based natural gas trading platform in an e-ceremony. Speaking on the occasion, Shri Pradhan said that the gas trading platform will play a vital role to discover our own price benchmark for gas, address demand supply gaps, accelerate investments in the value chain. The transparency, reliability, flexibility, and competitiveness of our gas markets will contribute in reviving India's industrial and economic growth.

For the first phase of the launch there will be three nodes, with ex-terminal prices at two of India's busiest LNG terminals Dahej and Hazira in Gujarat on the west coast along with some domestic gas in Oduru, Andhra Pradesh on the east coast. Within the first two days of its operation, IGX has got a market- discovered price of $4.07 per mmBtu, which is around 70% premium to the present domestic natural gas price of $2.39 per mmBtu, which most producers have cited as unviable.

Going forward, several regulatory and structural changes, such as, uniform transmission tariff, standardised network access code, Standardised GTA terms, simplification of tax regime, GST reforms, etc. would be required for the hub to work efficiently and to flourish.

- **Easing of LNG distribution and regulation by PNGRB**

Early in June, PNGRB has clarified that any entity can set up an LNG filling station in any Geographical Area (GA) or anywhere else, even if it is not the authorized entity for that GA. This development could potentially provide a big boost to the sector to promote green fuels like LNG and will promote the participation of more players across the value chain starting from OEMs and the fleet operators to the LNG dispensing infrastructure.

About 350 LNG filling stations will be needed to cover the full length of the golden quadrilateral highway, as per the initial plan and switching heavy-duty vehicles to LNG can help reduce emissions from the transport sector. LNG is an attractive alternative to diesel for Heavy-Duty Vehicles (HDV). LNG as a transport fuel is costs competitive with diesel and also leads to lower emissions and a significant reduction of engine noise. As a result, LNG as a fuel for trucks, also known as Auto LNG, has been gaining traction in major markets.

China is the market leader and the USA along with Europe are following suit given the advantages of LNG over diesel. China's market has been growing at a high rate due to supportive government policy. Although LNG is a fossil fuel, it is the cleanest burning fossil fuel available today and could be a bridge to a future dominated by renewable energy sources. The technology is mature, fuel sourcing is not an issue and environmental advantages imply that LNG will be the fuel for future generations.

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