Federation of Indian Petroleum Industry

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

AUGUST 2020

Table of Contents

Executive Summary 2

Economy in Focus 4

Oil Market 23

- **Crude oil price** 23
- **Oil Market stabilizes in USD 40 range in August** 24
- **Indian Basket Crude oil price** 25
- **Upstream activity & Rig count** 25
- **Oil demand & supply** 27
- **Global petroleum product prices** 28
- **Petroleum products consumption in India** 31

Natural Gas Market 32

- **Natural Gas Price** 32
- **Natural gas production, imports and consumption – July 2020** 34

Key developments in Oil & Gas sector during August 2020 36

Executive Summary

In August, the COVID-19 pandemic continued to spread at an aggressive pace and its impact started getting more visible on all major economies. During July, the US economy added another 1.8 million jobs, however, the country is still away from recovering the 12.9 million jobs lost during the lockdown. The latest data released by Bureau of Labor Statistics suggests that the unemployment rate fell to 10.2 per cent and remains higher than the great recession high of 10 per cent reached in June 2009.

The UK's furlough plan that pays 80 per cent of the worker's salary is set to end in two months. Ending furloughs could condemn millions to a sudden cash shortfall, and even a jobless future. There is an increasing risk that the labor-market fallout from ending support might kick off recession in the UK. This has placed the UK Government, already facing a public debt issue, to make the difficult choice of whether to discontinue the furlough measures or introduce or continue with the same.

The Euro Zone economy lost its momentum in the month of August after showing a resurgence of coronavirus cases forced new restrictions. The sharp slowdown, fuelled by the services sector, has made it clear that escaping the recession is not going to be a cake walk, and undermines lingering hopes for a V-shaped recovery. A recent report by IHS markit shows that the services sector in the bloc has hit a near stagnation over the last month or so. The region's economy stands at a crossroads and the path adopted is likely to depend in large part on how successfully COVID-19 can be suppressed and whether companies and their customers can both gain the confidence necessary to support growth.

In India, the COVID-19 cases continued to rise in August and reached over 3.17 million. Inflation in the country remained well above Reserve Bank of India's medium-term target of 4 percent and jumped back to 9.93 per cent, due to the continued rise in food prices resulting from disruption in supply chain. The industrial production in the country witnessed significant recovery since May. However, the services sector continued to struggle due to a sharp decline in new orders. However, amid much gloom, the unemployment rate in the country reaching 7.4 per cent, lower than the average unemployment during 2019-20 of 7.6 per cent, brought some relief for the country.

The recently released RBI annual report pointed out that the contraction of Indian economy will continue as states continue to re-impose stricter lockdown. The report noted that the shock to consumption is severe, and it will take quite some time to mend and regain the pre- pandemic momentum. Another report published by Moody's Investor Service has rated India among the top three emerging economies among G-20 countries that are set to post a strong growth in the second half of the year. However, the report also underlined that the recovery of the Indian economy will depend, to a large extent, on how well the Indian Government manages to restrict the spread of the pandemic. The report further claimed that China's border issues at the South China Sea and border skirmishes with India may increase the geopolitical risks for the entire region.

In the month of August, crude oil benchmarks steadied in USD 40 range as the demand saw a slow recovery. Despite the increase in production of crude oil due to relaxation in the production cuts, crude benchmarks increased in the month of August. Average Brent, WTI and Dubai basket crude prices went up by 4.68 per cent, 3.09 per cent and 3.19 per cent respectively from their July prices.

Coming to the Upstream drilling activity, the global rig count declined by 44 to reach 1,030. E&P players continued to stack more rigs as focus remained on maintaining the cash flow. Except for the Latin American market, rig count declined in all other regions. Indian rig count went up by one. One onshore rig was added in the month of July.

World oil demand in 2020 is estimated to decline by 9.1 mb/d in 2020, a downwards change by 0.1 mb/d as compared to June month's assessment. Downward revision is mainly due to the slower than expected recovery in demand in a few non-OECD countries, in addition to the global DGO adjustment from -3.7% in July to -4.0% in August. Refinery utilization increased in the month of July and reached 88.03% as demand for refined products rebounded slightly.

Asian gasoline 92 cracks spreads against Dubai weakened due to the oversupply environment and slower recovery in parts of China and South Asia. In India, demand for refined products declined by 3.7% in the month of July as few Indian states implemented restrictions to control the spread of covid-19. ATF, Greases & Lubricants saw an increase in consumption.

In the Henry Hub, price of natural gas increased by 8.1% in the month of July to reach $1.74/MMBtu. Cuts in gas production and increase in demand for gas from US power generators and industrial end-users led to the rise. Natural Gas price is forecasted to reach up to USD 2.21/MMBtu as the consumption is expected to increase. Natural gas prices in Europe saw an increase in natural gas prices from their record low prices as the region saw promising recovery for natural gas demand. Price in the Europe went up by 2.9% to reach USD 1.80 .MMBtu. Reduced flow of gas from Russia helped in increase of natural gas prices. Asian LNG prices for September delivery by USD 2.70 /MMBtu, highest in 4 months.

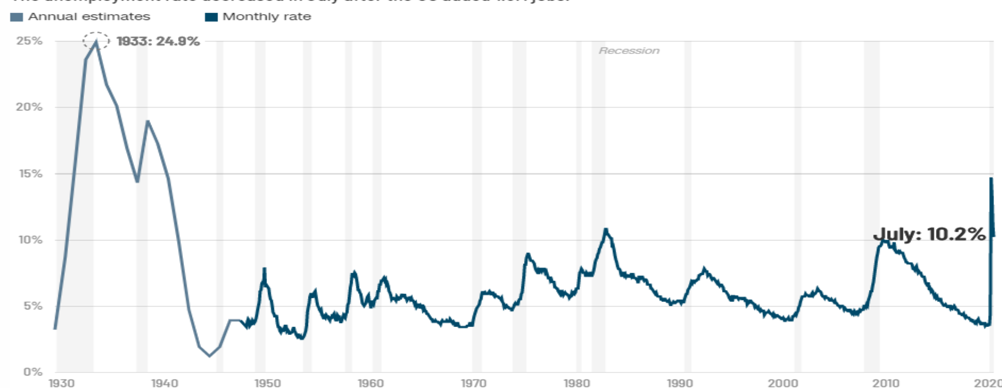
Policy & Economic report – Oil & Gas market

Economy in Focus

1. Uncertainty over pandemic and resurgence of cases, dilute the record employment gains made by US labour market in June

In the month of July, the US economy successfully added another 1.8 million jobs. However, it still remains a small step for the US economy that lost over 12.9 million jobs during the COVID induced lockdowns.

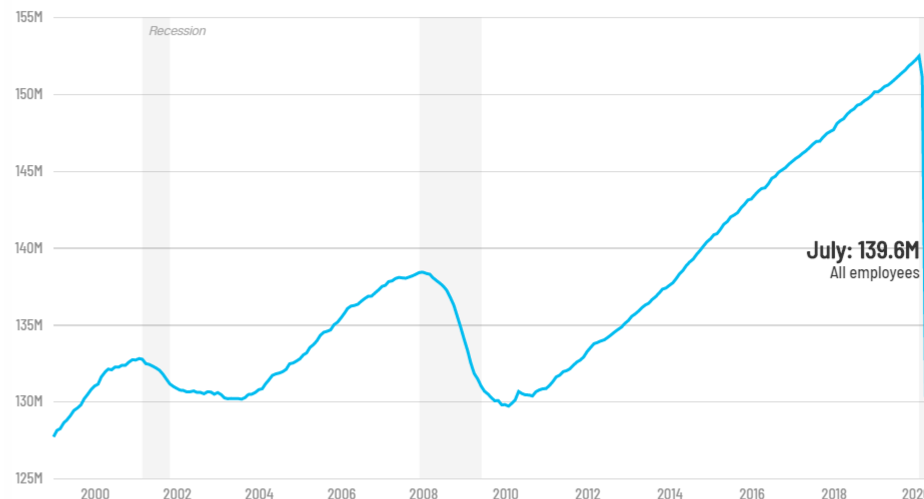
July marked the third straight month of improvement after the spring lockdown that decimated the labor market, and the July job gain exceeded economists' expectations. It still remains far less than the 4.8 million jobs added during the month of June. The latest data released by Bureau of Labor Statistics suggests that the unemployment rate fell to 10.2 per cent and remains higher than the great recession high of 10 per cent reached in June 2009.



The number of people working part-time rose by 803,000 to 24 million in total in July. The government defines part-time work as anything under 35 hours per week. Kate Bahn, economist and director of labor market policy at the Washington Center for Equitable Growth pointed out that the US has added more jobs than most economists had expected, but the gains were disproportionately inclined towards pert time employment. She added that increase in part time jobs means that the workers are coming back to jobs that pay less, and families are overall worse off. She further highlighted that the unemployment rate fell in all demographic groups. The rate remains by far the highest for Black workers at 14.6 per cent,

which raises serious alarm bells. Data from previous economic down-turns suggest that the black workers are more vulnerable to losing jobs.

The one green shoot arising from the employment report is the number of permanent job losses. The total number of permanent job losses have remained flat from June at 2.9 million. This might not sound exciting, but it would have been very bad news for the recovery had the number gone up.



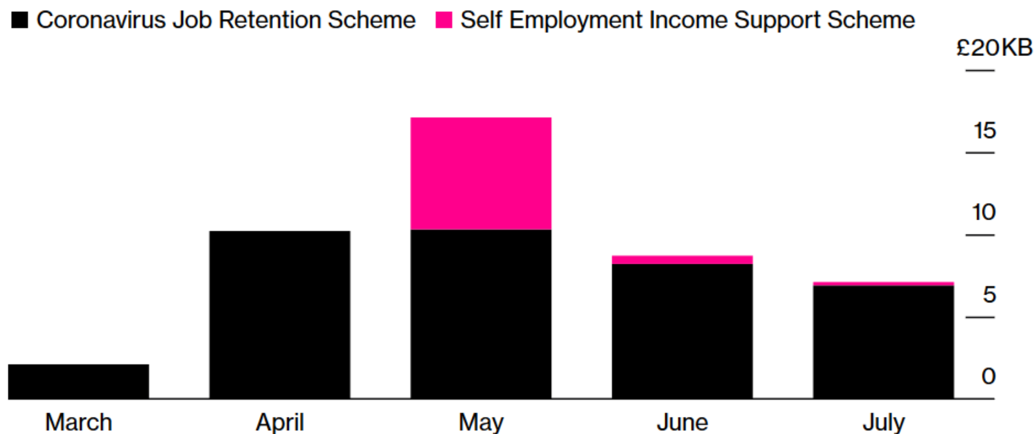
Since the breakout of the pandemic, the Government in the US has struggled to keep a track of the jobs lost. This is chiefly because it has been increasingly difficult for workers themselves to confirm whether they have been temporarily laid off or employed but not at work. The share of misclassified responses was smaller in June and July than in the months before. Taking into account the misclassified workers, the July unemployment rate would have been about one percentage point higher than reported.

The reopening of the economy in States and resurgence of COVID cases alongside businesses and individuals running out of federal aid, has created an unprecedented situation for the jobs market. A recent study by the Cornell University shows that 31 per cent of the workers who were rehired after the lockdowns have lost their jobs for the second time, while another 26 per cent are at high risk of losing their jobs. Some States like Arizona, Florida and Texas have seen a slow recovery in employments since June due to the rising number of COVID cases.

2. Government faces a difficult predicament as the furlough plan is at a scheduled end

The tenure of UK Chancellor of the Exchequer, Rishi Sunak has reached a defining moment as he decides if the millions of workers, presently living on Government aid, should soon start fending for themselves in a struggling economy. The UK's furlough plan that pays 80 per cent of the worker's salary is set to end in

two months. The Government has dismissed the rumors that it is under mounting pressure to extend the programme, whose cost is about EUR 35 Billion



The hard line taken by the conservative chancellor has raised the stakes at a time when reversing his stance would only add further to a list of embarrassing U-turns by the government. But ending furloughs could condemn millions to a sudden cash shortfall, and even a jobless future.

There is an increasing risk that the labor-market fallout from ending support might kick off recession in the UK. This may invoke memories of Margaret Thatcher's government, whose economic transformation in the 1980s set foundations for future growth at the cost of high unemployment that haunted the Conservatives' political brand for years. Carsten Jung, a senior economist at the Institute for Public Policy Research suggests that the decision to end the furlough may well be one of the most important decisions that Sunak will make during the crisis. This decision may determine the future of labor market for the better part of the next five years. Once unemployment goes up, it's really hard to get it back down.

In a year when Prime Minister Boris Johnson's government has bounced from crisis to crisis, Sunak's furlough plan proved a rare success, raising the chancellor's profile compared with colleagues. The program supported 9.6 million jobs and prevented mass unemployment in the country.

Uncertainties in Labour Market

The Bank of England has predicted for the unemployment levels in the UK reaching 7.5 per cent this year, almost double the present levels. The Bank has warned that the labor market poses the biggest risk to any economic recovery.

One of the major issues that the UK is facing is that restrictions to control the virus may persist after its aid program finishes at the end of October. Around 12 per cent of the workforce is furloughed, and the IPPR estimates 3 million people will be relying on the plan at its conclusion, two-thirds of whose jobs

would be sustainable if help were extended. With the Government's autumn budget around the corner, Sunak is under pressure when it comes to the country's public debt, which now stands above 2 trillion pounds. He's threatened to withhold funding for infrastructure projects that don't meet certain efficiency criteria, the Telegraph reported.

To further support the recovery, Government may decide to pause the pension protection programme. These plans are being resisted by the Prime Minister amid fears that could lead to a backlash from older voters.

Taper Timetable

MONTH	GOVERNMENT	FIRMS	ESTIMATED FIRM CONTRIBUTION OF NORMAL COSTS (%)
August	80% (Up to £2,500)	0%	5%
September	70% (Up to £2,190)	10%	14%
October	60% (Up to £1,875)	20%	23%

Source: Bloomberg

Maintaining the Status – Quo

With public debts reaching high levels, Government could simply allow the plan to expire and hope that other measures announced help create more jobs. They include a 2 billion-pound program to pay wages of more than 200,000 young workers, and a 1,000-pound bonus for firms that keep on employees returning from furlough.

Another argument against the extension is that it could prepare the economy readjusting to a new reality, delaying painful restructuring. However, some experts are of the opinion that the consequences of a sudden end to furloughs would still be severe as joblessness spirals. They feel that if the Government chooses to end the furlough, it should ramp up investment in skills and training, particularly for young workers and those over 50.

Continue with the plan

If the Government decides to continue with the furlough plan, it may prove relatively inexpensive. The National Institute of Economic and Social Research, an independent research group, feels that keeping the plan until the middle of 2021 would cost about 10 billion pounds and pay for itself by reducing long-term unemployment. An alternative option offered by the Resolution Foundation is to maintain furloughs in sectors most damaged by the crisis.

Introduction of a new programme

Government could end furloughs while keeping some aid in place by unveiling a totally new program. One idea from the IPPR is to replace the current plan with a Coronavirus Work-Sharing Scheme targeting only jobs and businesses likely to be sustainable. It would run through March and cost EUR 7.9 billion. The Resolution Foundation has proposed for a job sharing scheme where two people work part time on the same role, while the State will pay for the non-worked hours. It also proposes a subsidy scheme for firms operating in sectors that are worst hit due to the pandemic.

3. Led by the services sector, the Euro-zone economy continues to struggle after initial spike

The Euro Zone economy lost its momentum in the month of August after showing a resurgence of coronavirus cases forced new restrictions. It further highlighted the challenges associated with bringing back the economic momentum when the pandemic is still out there.

The sharp slowdown, fuelled by the services sector, has made it clear that escaping the recession is not going to be a cake walk, and undermines lingering hopes for a V-shaped recovery. While infections are approaching levels recorded during strict lockdowns earlier this year, Governments are still reluctant to re-impose those measures.

A recent report published by IHS Markit pointed out that its composite measure of private-sector activity in the region dropped to 51.6 in August from 54.9 in July. While the manufacturing sector performance remained unchanged, the services sector dropped to 50.1, a level that indicates stagnation. After the easing of the restrictions, the economy had bounced back strongly, amid serious concerns that the pace may fade due to the pandemic. The European Central Bank policy makers, during their meeting in July, were reluctant to draw firm conclusions about the health of the economy. As we approach the end of August, their concerns appear more justified.

The number of jobs generated by both manufacturing and the services sector continued to fall in August. With employment in the region falling for the sixth straight month, Governments are fearful that a damaging rise in joblessness could persist. While France and Germany, the euro area's biggest economies, continued to see growth in activity, the Markit report suggested output declined in Italy and Spain. Andrew Harker, economics director at IHS Markit underlined that the euro zone stands at a crossroads and the path adopted is likely to depend in large part on how successfully COVID-19 can be suppressed and whether companies and their customers alike can gain the confidence necessary to support growth

To continue economic activity during the pandemic, countries across the region have placed some restrictions on public life. Spain and Italy shut discos, and Greece limited hours for bars and restaurants in hopes of avoiding more stringent measures after the holiday season winds down. Irish authorities are also considering new measures to curb the pandemic.

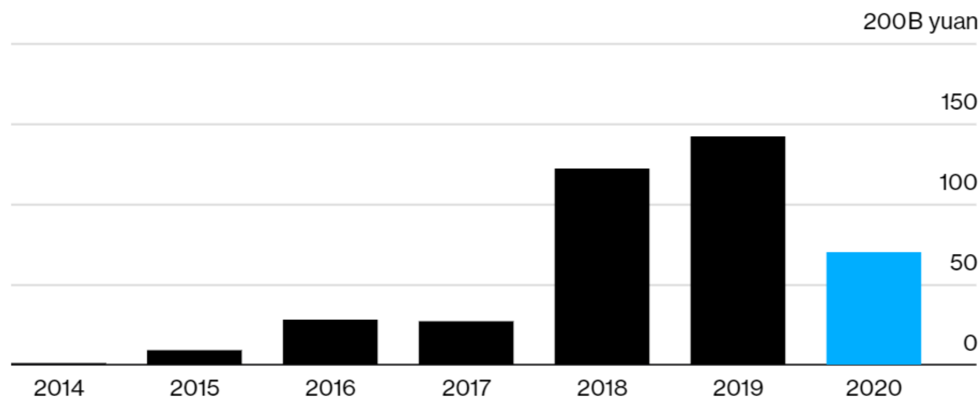
For the travel industry, which is already under distress, those steps will have serious consequences. Ryan air Holdings, Europe's biggest discount carrier, has cut back on schedules, saying the uncertainty has discouraged people from booking foreign trips. Deutsche Lufthansa has also decided to reduce capacity

to Spain, in response to a German travel warning. The country has re-emerged as a new hotspot for the virus.

4. Chinese debt crisis to worsen towards the year end as more companies default in debt service

The Chinese COVID weakened economy is entering a dangerous new era for the country's USD 4.1 Trillion corporate bond market. The nation's economy is now strong enough for policy makers to introduce new financial support measures yet too weak for bailing out the most distressed borrowers, Some fund managers are bracing for defaults on domestic Chinese debt to hit record highs this year. The number of default cases are already on a rise after a quiet second quarter. The pressure on borrowers is further set to increase as 3.65 Trillion yuan (USD 529 billion) of notes mature by the end of this year.

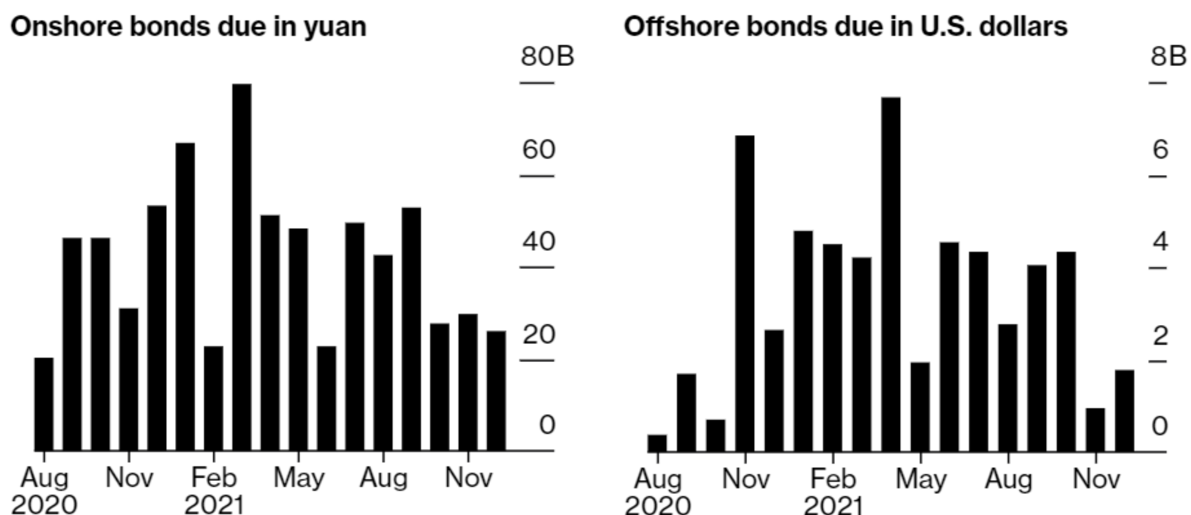
While there are few who see a crisis brewing, debt specialists at SC Lowy and Adamas Asset Management are becoming more selective in China, arguing that the government-induced calm in local credit markets is unlikely to last. Some analysts are of the opinion that non-state companies, lower-rated developers and some local government financing vehicles are more vulnerable as the borrowing costs continue to rise and refinancing gets more and more difficult. Brock Silvers, chief investment officer at Adamas Asset Management in Hong Kong pointed out that the government has neither the firepower nor the will to backstop it all. He further added that he expects onshore defaults in China to reach a new annual record this year. Data compiled by Bloomberg suggests that the country is looking at 72.2 billion yuan of delinquencies by the end of this year.



So far this year, the local defaults have been rare, in spite of the fact that the Covid-19 pandemic plunged China's economy into its worst contraction in decades during the first quarter. Onshore delinquencies fell 17 per cent in the first half to 49 billion yuan, due to the government encouragement to lenders to refinance debt, accept payment delays, or find other solutions such as swapping bonds for fresh notes with longer maturities.

Authorities' outsized focus on avoiding defaults now appears to be easing as the economy bottoms out and the threat of market contagion wanes, a policy stance that aligns with the government's long-term goal of improving the financial system's pricing of risk. Chinese companies defaulted on 10.4 billion yuan of notes in July and about the same amount in August, with luxury home developer Tahoe Group Co. among the latest to miss payments.

Owen Gallimore, head of credit strategy at Australia & New Zealand Banking Group Ltd. in Singapore pointed out that a somewhat illusory improvement has been noticed this year, on drilling deep the picture does not appear pleasant. He further predicted that China's onshore bond market will soon catch up with the trend offshore, where the defaults on debt exceeded last year's total by over 55 per cent.



The country's developers either need to refinance or pay 199.3 Billion Yuan of onshore debt alongside USD 12.3 billion in offshore notes before the end of the year. They'll have to come up with the cash while also adhering to issuance guidelines introduced this month that restrict the size of bond offerings by property companies in China's interbank market to 85 per cent of outstanding debt coming due.

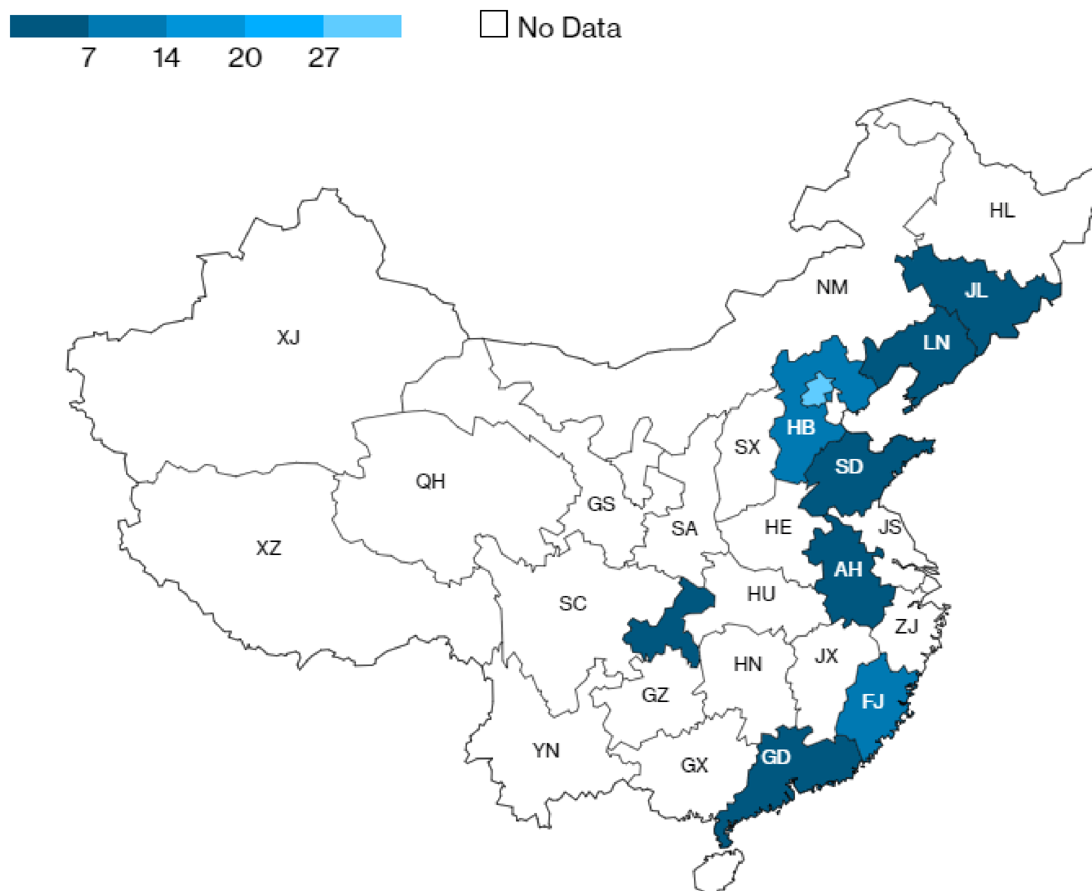
While the authorities may remain tolerant to defaults, it is unlikely that they will completely turn off the credit tap. On August 17, 2020, the People's Bank of China added 700 billion yuan of one-year funding via its medium-term lending facility, more than offsetting upcoming maturities in a move that Citic Securities Co. described as more accommodative than expected.

According to Soo Cheon Lee, chief investment officer at SC Lowy, the upshot for bond investors is that security selection now matters far more than it did earlier this year. Lee further emphasized that smaller companies and borrowers experiencing commodity-driven or industry-related stress will remain under immense pressure for the coming few months. Within the next eight months, at least 10 Chinese

companies that had received approvals for delaying their debt service after the virus outbreak will face payment deadlines.

The ratio of interest-bearing corporate debt to gross domestic product, has risen 13 per cent this year to 164 per cent at the end of June. Local government financing vehicles have also been piling debt, selling the equivalent of USD 361.1 billion in domestic and offshore bonds so far this year. Questions over whether they'll be able to repay it all intensified this month after an LGFV from north-eastern Jilin province wired funds to bondholders later than usual. This is being widely seen as a sign of potential difficulties in securing cash.

Jilin is just one of the many provinces that face a high risk of LGFV repayment. Other provinces facing similar crisis are Heilongjiang, Liaoning, Yunnan, Guizhou and Sichuan.



Source: Bloomberg

It still remains to be seen if the investors have adequately priced the risk of rising defaults. Corporate yields onshore have edged up from the lowest levels in more than a decade in May, but they're still well

below long-term averages, according to ChinaBond indexes. Spreads between lower- and higher-rated credits are also near the tight end of their historical range.

5. COVID-19 and trade war may force manufacturing companies to look towards ASEAN countries

A recent report published by Moody's Investors Service, the Global Credit Rating Agency, suggests that as a result of the COVID crisis many countries and companies will reduce their dependence on China in global value chains. The report expects that such a move will have mixed credit implications on Association of Southeast Asian Nations (ASEAN).

The report predicts that the diversification of trade will benefit the ASEAN countries over time, while the re-shoring of supply chains closer to consumer markets, especially in sectors with heightened security requirements such as pharmaceuticals, could move productive capacity away.

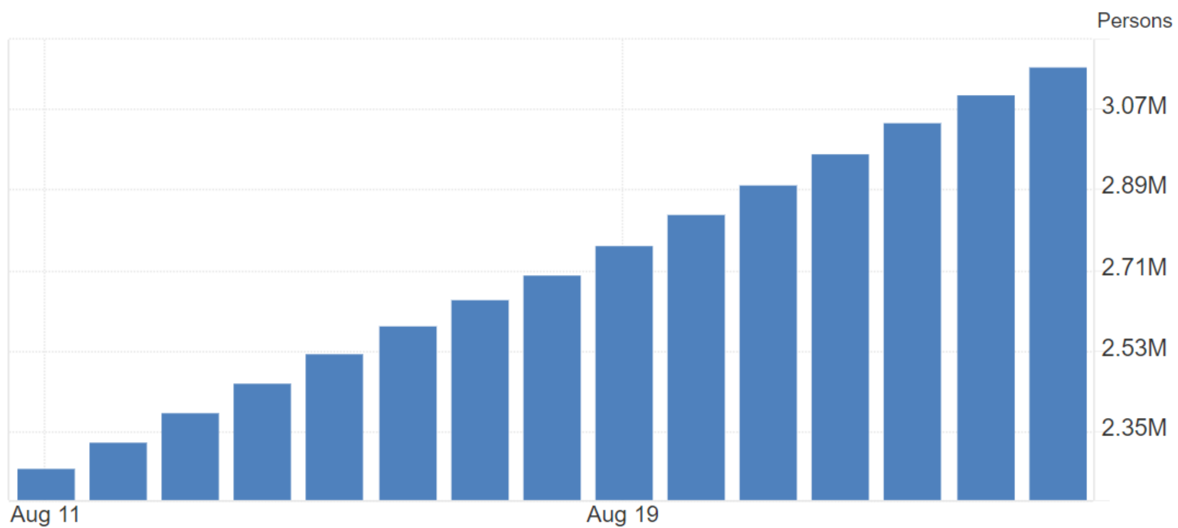
While it is highly unlikely that we will see an exodus of foreign companies from the Chinese markets, even as companies step up efforts to mitigate risks, recent events will accelerate the offshoring of activities to ASEAN at the expense of trade with China. Deborah Tan, Assistant Vice President and Analyst, Moody's pointed out that it is expected that many Governments and companies will reduce their dependence on China in global value chains moving forward due to multiple reasons including outbreak of the pandemic, US-China trade war and rising concerns over economic security.

The report further highlights that while the technological capabilities of the ASEAN still lag those of more advanced Asian economies, particularly in electronics, the region's openness towards FDI and lower cost of production are serious advantages that could not be undermined. ASEAN, a bloc of 10 member nations, is now the sixth largest globally and has the third largest labour force behind China and India. The region also has a history of being open to FDI inflows and has well-established regional production networks.

The report further indicated that while the ASEAN economies stand to benefit from the efforts of producers to diversify their sources of supply, they will be negatively affected if re-shoring trends become more pronounced. The agency suggests that the bloc could mitigate such risks through enhancing free trade agreements with advanced economies, deepening regional trade agreements, and developing ASEAN further as a trading bloc in its own.

6. Snapshot of Indian Economy: Amid rising inflation, fall in unemployment brings a sigh of relief

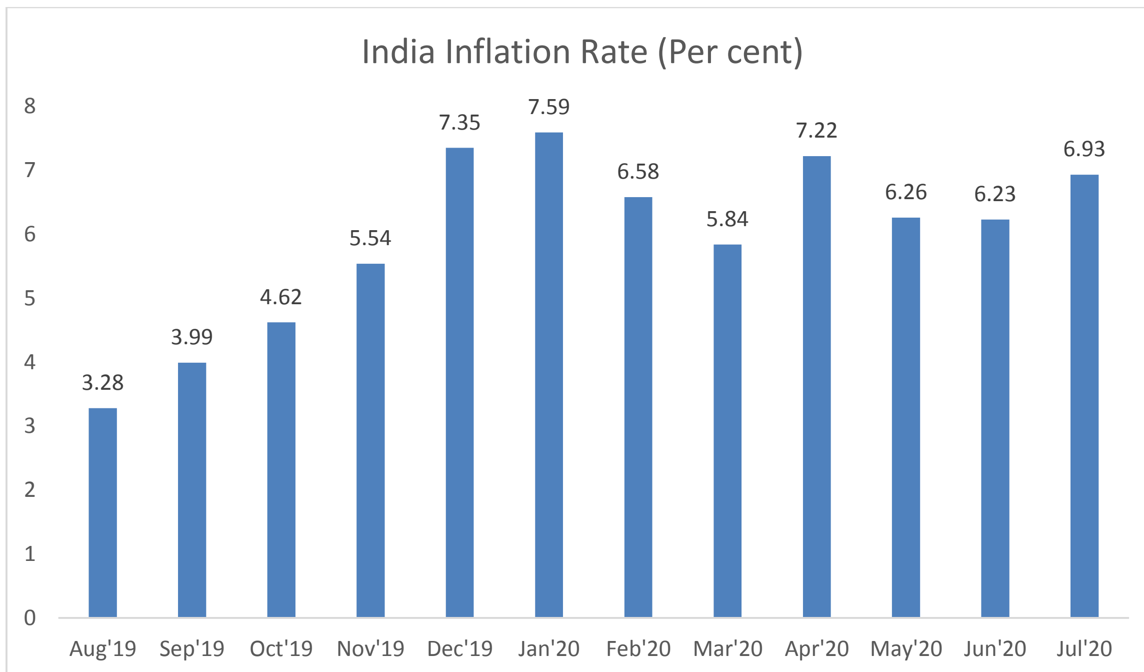
The number of COVID-19 cases in the country continued to increase in the month of August as well. According to World Health Organization (WHO), as on 25 August 2020, India had a total of 3.17 Million people affected by the pandemic. India now has the third highest number of COVID cases in the world after the US and Brazil. The COVID death rate in India has remained significantly lower than other countries at 58,390.



Source: World health Organization (WHO)

Inflation

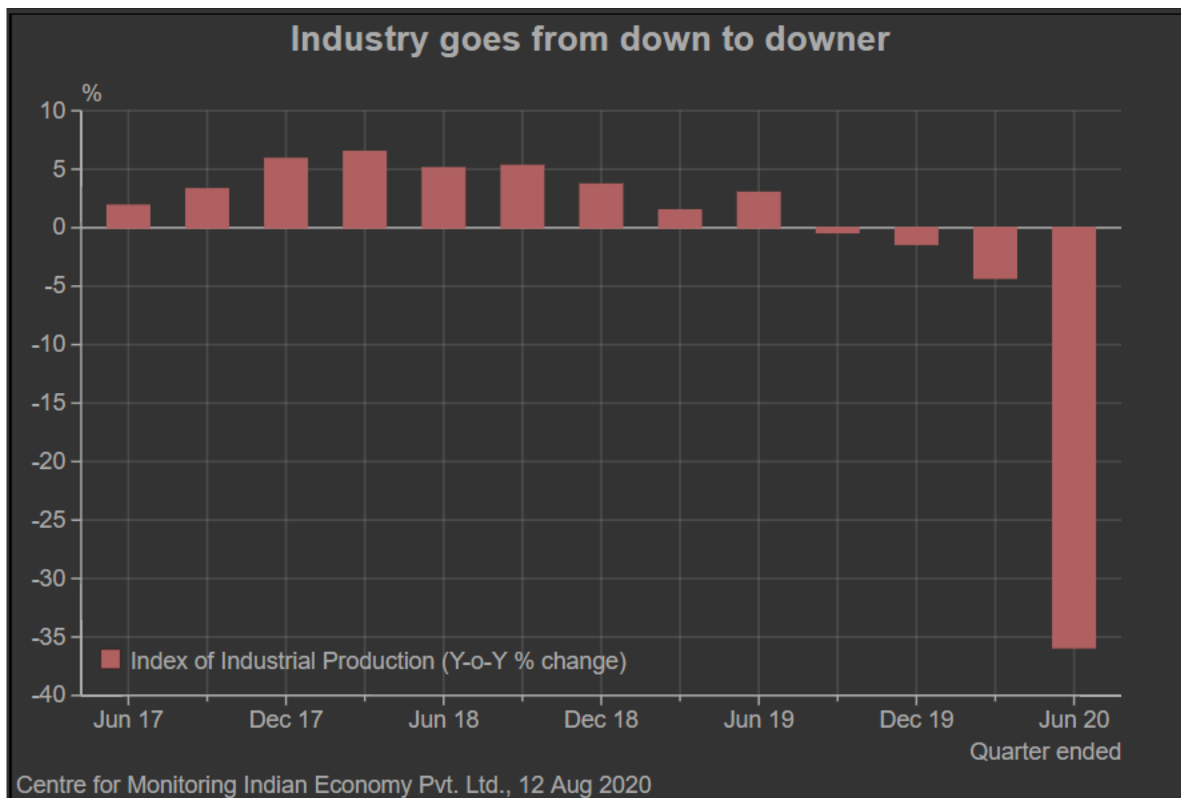
In July 2020, the retail price inflation in the country rose to 6.93 per cent YoY from 6.23 per cent in the month of June. Inflation in the country remained well above Reserve Bank of India's medium-term target of 4 percent, due to the continued rise in food prices resulting from disruption in supply chain. Other factors contributing to the rise in inflation are pan, tobacco and intoxicants (12.35 per cent), housing (3.25 per cent), clothing and footwear (2.91 per cent), fuel and light (2.80 per cent), and miscellaneous (6.95 per cent)



Source: Ministry of Statistics and Programme Implementation (MoSPI)

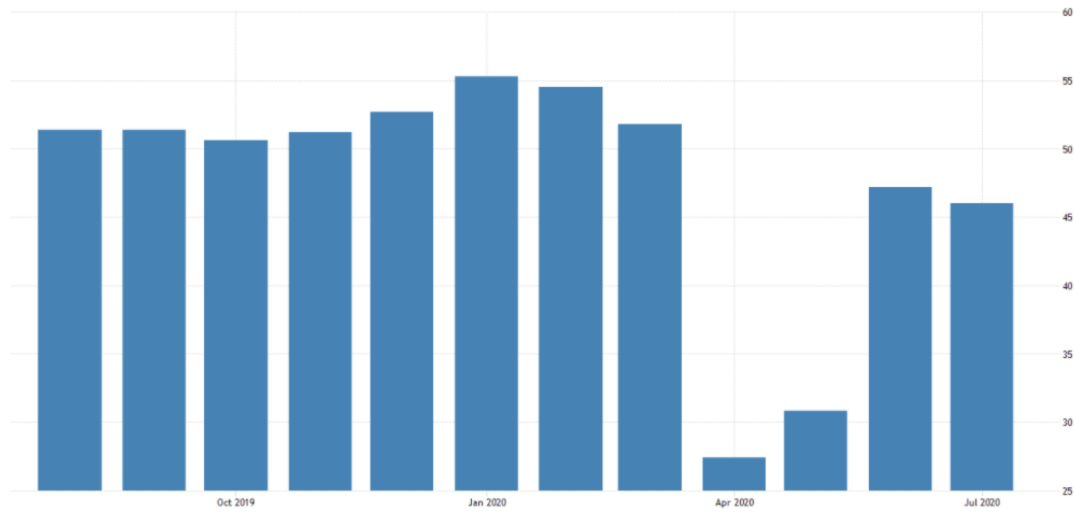
Industrial production

In June 2020, the Index of Industrial Production (IIP) grew by 20.5 per cent from May. It continued the recovery that began in May, for the second consecutive month. The IIP had shrunk by 54.3 per cent in April. This was after shrinking by 12.7 per cent in March and 2.3 per cent in February. In May, it grew 67 per cent before rising by another 20.5 per cent in June. Yet, the index at 107.8 in June was 16.6 per cent lower than its level a year ago. It was also much lower than it was before the lockdown.



The IHS Markit's Purchasing Manager's Index (PMI) recorded a fall of 46 points in July 2020, from 47.2 in the previous month. The latest data indicate a fourth straight monthly contraction in factory activity, as some business remained closed amid coronavirus lockdown extensions. Output shrank at a slightly faster rate amid weaker demand conditions. Also, new orders continued to fall markedly, still slower than at the height of the current crisis and export sales dropped further albeit at the softest pace in four months.

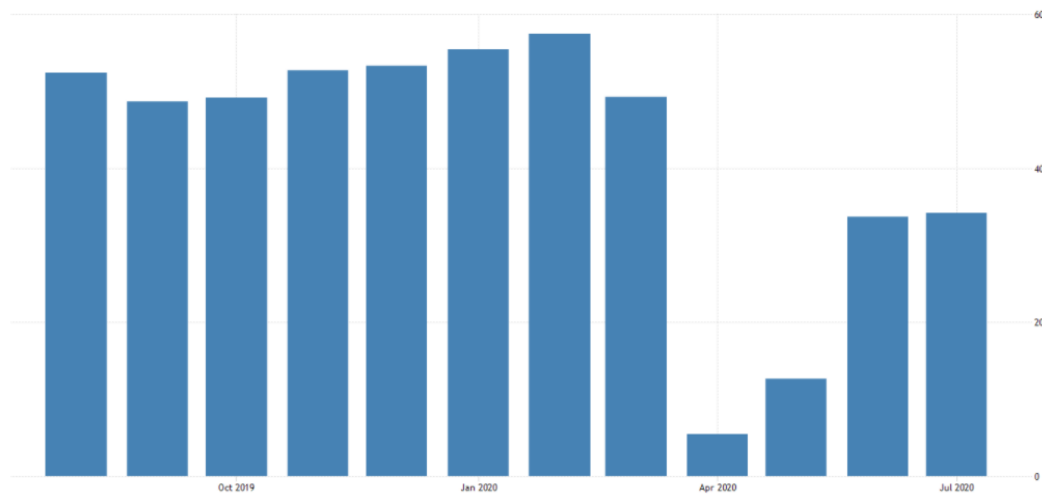
India Manufacturing PMI



Source: Trading Economics

In July 2020, the PMI for the services sector increased to 34.2 from 33.7 in the month of June. However, it still pointed to the fourth-sharpest fall in services activity in last 15 years. Both output and new orders continued to decline due to a further drop in sales. The latest decline in new export orders was steeper than that for total new business.

India Services PMI

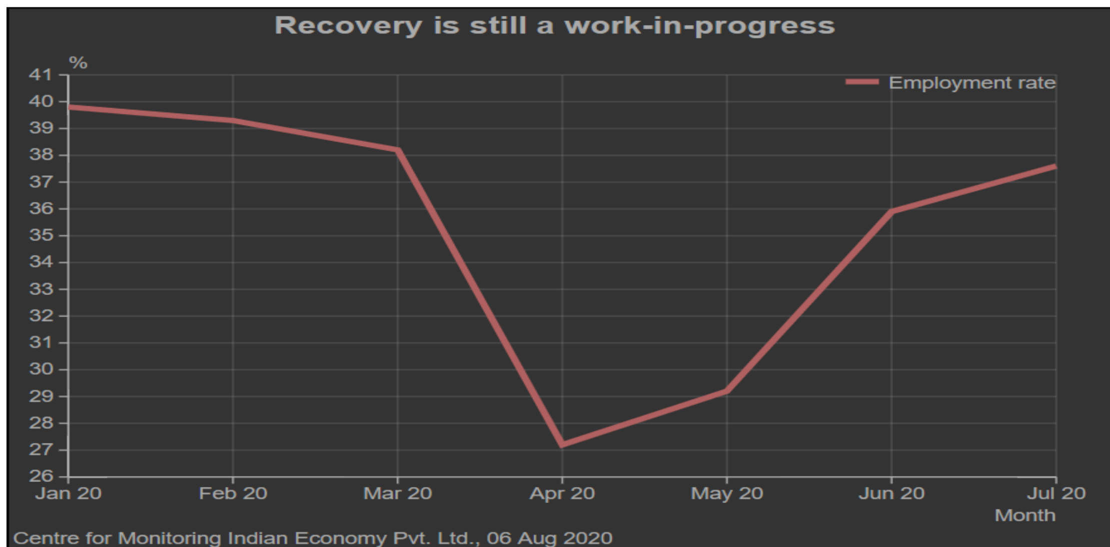


Source: Trading Economics

Unemployment

Unemployment rate in the country reached its pre-COVID levels in July. The unemployment rate in July 2020 was 7.4 per cent. This is lower than the average unemployment rate of 7.6 per cent during 2019-20. The unemployment rate in February and March 2020 was 7.8 and 8.8 per cent, respectively. The July

2020 unemployment rate is lower than both. However, it is slightly higher than the 7.3 per cent recorded a year ago, in July 2019.



7. **Due to repeated lockdowns imposed by State Governments, economic recovery may take longer: RBI**

The Reserve Bank of India (RBI) in its recently released annual report pointed out that the contraction of Indian economy will continue as States continue to re-impose stricter lockdown. The report further highlighted that it will be imperative to withdraw the stimulus measures once the cure to Covid-19 is found.

The report claimed that the high frequency indicators are pointing towards a retrenchment in activity that is unprecedented in history. The report mentioned that the spike in economic activity recorded in May and June after the lockdown was eased in several parts of the country, appears to have lost strength in July and August due to continued re-imposition of strict lockdown in states, leading to a prolonged contraction in the Indian economy.

RBI noted that the shock to consumption is severe, and it will take quite some time to mend and regain the pre- pandemic momentum. Public finances have stretched to fight the pandemic, and supporting demand led activities would be severely diminished. The report further mentioned that the State finances during this period are so strained that cuts in capital expenditure cannot be completely ruled out. The future path of fiscal policy is likely to be heavily conditioned by the large overhang of debt and contingent liabilities incurred during the pandemic.

The report goes on to suggest that a credible consolidation plan, specifying actionable for reduction of debt and deficit levels, will earn confidence and acceptability rather than just extending the path of touchdown. RBI has suggested that the Government should now make use of big data and technology to track and identify tax defaulters, increase the tax payer base by tracking their income and wealth parameters, and by addressing the challenges confronting the GST regime through rationalization, and simplification. The report suggested that job creation should be at the very focus of all Government policies and fiscal incentives should be provided to labour intensive sectors.

Besides, the state and central governments should explore monetization of assets in steel, coal, power, land, railways and privatization of major ports to revive and crowd in private investment. The role of banks and non-banks have waned as primary financial intermediaries, in favor of capital and bond markets. In all this, the usual risks are pushed to the background where they may be mutating – fiscal dominance; inflation; leverage; market failure. Meanwhile, the crisis presents opportunities and the shape of the future will depend on how well they are exploited. The report has underlined that the Indian banking system has to get rid of risk aversion that is bottlenecking the flow of credit to the productive sectors of the economy and undermining their role as the principal financial intermediaries.

While the gross and net non-performing asset ratios came down in March along with the receding slippage ratios, the economic distress caused due to the pandemic is expected to test the resilience of the economy since the regulatory accommodations announced in the wake of the outbreak have masked the consequent build-up of stress.

In the Financial stability report published in June, the stress test report showed that non-performing assets could rise by 1.5 times above their March 2020 levels under the baseline scenario and by 1.7 times in a very severely stressed scenario. The system level capital adequacy ratio could drop to 13.3 per cent in March 2021 from its March 2020 level under the baseline scenario and to 11.8 per cent under the very severe stress scenario. There is a need for both Private and public sector banks to recapitalize as the capital requirements calculated based on historical loss events, may no longer suffice to absorb post-pandemic losses.

8. Financial markets continue to rally amid slowing economic growth; market correction inevitable

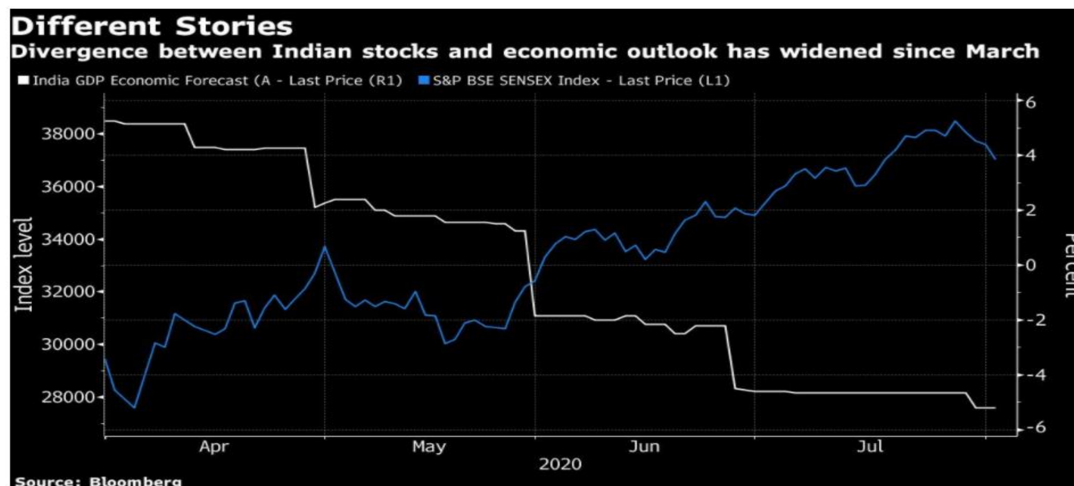
The COVID-19 virus, which was first noticed in the Wuhan Province in China, has now spread across the length and breadth of the world. In March 2020, the WHO was forced to declare COVID-19 as a global pandemic. The aggressive spread of the pandemic resulted in widespread lockdowns and restriction on movements. The COVID inflicted lockdown brought the operations of many businesses and firms to a sudden halt due to the shortfall of cash.

The halt in business operations reflected across all major global stock markets and primary indexes such as Dow Jones Industrial Average, Nasdaq Composite, Sensex, Nikkei, FTSE100, etc fall by over 20 per cent. In India, the primary indices Nifty 50 and S&P BSE Sensex recorded a fall of over 25 per cent each to 8200 and 28000 respectively. This period also witnessed the highest ever selling by foreign institutional investors. Due to the continued extension in lockdowns and GDP downgrade was being expected to drag

the Indian equity markets to further lows. However, against all expectations, Indian stock markets have registered a strong rebound since.

The Indian share markets have recorded one of the best rebounds from the March lows globally while battling some of the world's worst economic data. The unprecedented surge has pushed the valuations to a record high and the investors are now looking past the grim realities of the market and rising COVID cases in the country to invest in the Indian markets.

India, Asia's third largest economy, is set to witness a sharp fall in its growth rate and even a possible contraction of the economy during the ongoing financial year. Many analysts are of the opinion that the economic indicators do not support the surge in Indian stock markets and hence such highs may not last very long. C. J. George, chief executive officer at Geojit Financial Services Ltd pointed out that "Any market activity without supporting fundamentals will not sustain,"



Within the first half of this financial year, the country's fiscal deficits are set to touch its annual target, significantly depleting the Government's fire power to add to the very ambitious USD 280 Billion stimulus package. To make matters worse, the country's bad loan ratio is set to reach its highest level in more than two decades in 2021 following the world's strictest lockdown measures.

A recent report by IHS Markit suggests that the outlook for Indian businesses is not very positive at this juncture. The data provider's survey on sentiment turned negative in June for the first time in more than a decade, and many respondents were uncertain about how activity would develop over the coming year. Another study by Bloomberg shows that while big corporations expect economic activity to recover to the pre-pandemic levels by end of the year, analyst opinions and some economic indicators still paint a gloomy picture for the economy. One bright spot has been the latest improvement in exports and business activity.

However, riding on the rising interest from first-time investors and three straight months of purchases by foreigners, the S&P BSE Sensex is up 50 per cent from its March 23 low. The rebound of the Indian stock market has been rated as the eighth best among major global equity indexes for the period. The market optimism has also resulted in making stocks more expensive. The Sensex trades at 24 times one-year

forward earnings, more than two standard deviations above its 10-year average. The NSE Nifty 50 Index is valued at 23.5 times.

In a recent note Aditya Narain of Edelweiss Financial Services Ltd. has underlined "Market mood notwithstanding, demand aggregates appear challenging and that makes us cautious on the market." The brokerage has predicted for Nifty dropping to 10800 by June 2021, almost 3 per cent lower than the August average.

Market Correction Inevitable

In a recent interview Mr Shaktikanta Das expressed his concerns over disconnect between the financial markets and the real sectorial performances. Mr Das mentioned that the stock market is bullish because of the rising liquidity in the system and the global economy. He accepted that the rally in the stock market is not connected with the performance of the economy. He further mentioned that a correction in the financial market is inevitable.

9. India among top three G-20 emerging economies expected to post strong growth in second half of 2020: Report

Amid otherwise gloomy economic outlooks, a recent report by Moody's Investor Service brought relief for India. According to the latest report, India, China and Indonesia will be the only G-20 emerging economies, which are expected to post a strong recovery in real GDP in the second half of 2020. However, the report retained its projection of 3.1 per cent growth contraction for India in 2020.

The report suggests that the economic outlook of emerging economies is more challenging than the developed economies. According to its baseline projections, India, China and Indonesia have emerged as the only countries that are expected to post a strong enough pick up of real GDP in the second half of 2020 and full-year 2021 to end next year above pre-coronavirus levels.

The report projects India to grow at 6.9 per cent in 2021. In FY 2019-20, the country's economy grew at its lowest at 4.2 per cent, recording a 11 year low. The rating agency is of the opinion that the Indian economy is already on its path to recovery and a strong recovery will completely depend on how well it contains the spread of the virus. Economic data show a quick rebound in goods consumption in a number of advanced economies. However, pandemic fears will continue to hinder a complete recovery. It projected a 4.6 per cent contraction for G-20 economies in 2020, followed by 5.3 per cent growth in 2021. With the exception of China, it is expected that economic activity in every G-20 economy is set to fall this year.

The report further said that in countries like India and Turkey, where banking sector is considered weak, here is a risk of a self-sustaining negative loop in which adverse real economic developments and bank weakness reinforce each other and harm long-term productive capacity. The report mentioned that trade disputes between China and its trading partners such as the US, Australia, the UK, Canada and India has further accelerated since the outbreak of the pandemic.

The emphasis of various governments on shoring up domestic productive capacities can also be viewed as an attempt to reduce their co-dependence on the global economy. "Over time, geopolitical tensions

between competing powers could exacerbate in a less interdependent world. Asian countries are particularly vulnerable to changes in geopolitical dynamics. The report further claimed that China's border issues at the South China Sea and border skirmishes with India may increase the geopolitical risks for the entire region.

Special Feature

10. UK stimulus plan focuses on saving jobs and making employment available for the youth

With a view of jump starting the economy, the UK Government has provided for a EUR 30 Billion stimulus package focused at saving jobs and helping the youth in finding work in an economy that is still grappling with the pandemic. Announcing the stimulus package, finance Minister Rishi Sunak announced bonuses to companies retaining staff and taking on apprentices, investment in eco-friendly jobs and even allowing Britons to enjoy discounted meals in some restaurants. Mr Sunak, the Chancellor of the Exchequer, underlined "People need to know that although hardship lies ahead, no-one will be left without hope."

Some of the key highlights of the stimulus package are as under:

- EUR 54.0 billion for the Coronavirus job retention scheme
- EUR 31.9 billion of additional funding to the NHS: EUR15 billion for PPE ; EUR 10 billion for the government's Test, Trace, Contain and Enable programme; EUR 1 billion to procure additional ventilators a further EUR 5.5 billion of spending on health services, including the use of Independent Sector Health facilities
- EUR 15.0 billion for the small business grant schemes
- EUR 15.0 billion for the Self-Employed Income Support Scheme
- EUR 11.8 billion for a 12-month business rates holiday for all retail, hospitality and leisure and nursery businesses.
- EUR 10.4 billion for non-NHS increases in public funding spending (remainder from total EUR 51.1 billion increase in public service spending according to HMT, minus EUR 2.5 billion based on OBR July 14 estimates)
- EUR 8.0 billion for welfare measures: increase in Universal Credit standard allowance and Working Tax Credit basic element by EUR 1,000; removal of the Minimum Income Floor; those on Contributory Employment and Support Allowance claiming from day one instead of day eight; increase in Local Housing Allowance to 30% of market rents and further operational welfare changes.
- EUR 6.1 billion for the Job Retention Bonus programme: UK Employers will receive a one-off bonus of EUR 1,000 for each furloughed employee who is still employed as of 31 January 2021 (OBR July 14 estimates).
- EUR 4.0 billion in capital spending brought forward to 2020/2021 for shovel-ready construction projects (OBR July 14 estimates).
- EUR 3.5 billion to ensure rail services continue to operate
- EUR 2.5 billion in VAT cuts from 20% to 5% for food, non-alcoholic drinks, accommodation and attraction until early January (OBR July 14 estimates).
- EUR 2.0 billion in capital spending brought forward to 2020/2021 for Green Homes Grant to enable homeowners and landlords make their homes more energy efficient

- EUR 2.0 billion in other support for businesses (remainder from total EUR 30.3 spent on business support according to HMT)
- EUR 1.6 billion to scale up employment support schemes, training and apprenticeships to help people looking for a job.
- EUR 1.3 billion in Stamp Duty Land Tax temporary cut (OBR July 14 estimates).
- EUR 1.3 billion to support the cultural sector.
- EUR 1.2 billion to delay by a year the implementation of reforms to off-payroll working rules for the private sector
- EUR 1.1 billion in capital spending brought forward to 2020/2021 for making public buildings, including schools and hospitals, greener.
- EUR 0.8 billion of extra funding to frontline charities across the UK
- EUR 0.8 billion to support for small and medium sized businesses focusing on research and development
- EUR 0.7 billion kick-start Scheme: create hundreds of thousands of new, fully subsidized jobs for young people across the country (OBR July 14 estimates).
- EUR 0.5 billion of funding for local authority to support vulnerable people (‘Hardship Fund’)
- EUR 0.5 billion for the “Eat Out to Help Out” discount scheme
- EUR 0.3 billion in VAT cuts: VAT zero rating for personal protective equipment, Customs Duty and VAT relief on imported donated medical equipment, domestic reverse charge VAT for construction services delay in implementation
- EUR 0.3 billion to investment fund for high-growth companies impacted by the crisis, made up of funding from government and the private sector
- EUR 0.2 billion to extend Statutory Sick Pay (SSP) and temporarily remove the minimum income floor in Universal Credit
- EUR 0.1 billion for VAT on e-publications (measure moved forward to 2020)

The package includes EUR 2 billion in grants for households to insulate homes and make them more energy efficient, and EUR 1 billion for public sector buildings, including hospitals. The stimulus plan is also in line with the UK’s long term commitment to reduce carbon emissions to net zero by 2050. Since the beginning of the crisis in the UK, the Bank of England has pumped cash stimulus worth EUR 300 billion into Britain's economy and slashed its main interest rate to a record-low 0.1 percent. Some experts have placed the total cost of all emergency measures taken by the UK Government at EUR 300 Billion

The crisis has forced Prime Minister Boris Johnson to make spending commitments usually favored by the left-leaning Labour party rather than his own Conservatives. Some experts are of the opinion that the Government should focus on boosting demand and provide consumers and workers with the confidence and the psychological security so that they could go out to work, to shop and to socialize safely.

The head of Britain’s CBI business lobby Mr. Carolyn Fairbairn feels that the new plan will help workers. Nearly 70 percent of firms are running low on cash. More immediate direct support for firms, from grants to further business rates relief will help this situation. The government is paying up to 80 percent of salaries for some nine million workers under a furlough scheme.

Lessons from Economics

The last 30 years have seen India being a witness to two significant economic transitions. 1990s saw the era of liberalisation, which has been a boon for the current generation. The last couple of years have seen yet another market structure, an essentially monopolistic one, the continuance and rise of which can be a source of worry.

As the word suggests, a monopolistic market is characterised by a single seller selling a unique product in the market. This seller would face no competition since his goods have no substitutes and hence the pricing mechanism is solely at the discretion of the seller.

India's admirable plan of privatising certain sectors of the economy inorder to receive better performance, fell to a somewhat confusing state of affairs when all the airfields that were put up for bid went to a single buyer.

The conundrum here lies in the fact that a single operator cannot possibly be pleasant news for airliners, passengers and other business operating from these airports. A similar tipping of scale emerged into the telecom sector, where a field which boasted of numerous players, is now effectively a duopoly.

This effectively means that the entire gamut of businesses in India from airports & railways, power plants, energy distribution utilities as well as telecom, retail, pharma and many other significant sectors are now dominated by just a handful of capitalists which while may seem majestic, will definitely not leave any space for others to operate in.

The question arises as to why is this a concern? Fundamentally speaking, monopolies face inelastic demand and hence have the complete liberty to increase prices, giving the consumers no alternative. Additionally, when consumers have to pay higher prices, the pie of consumers who can afford to buy the product decreases significantly. This then lead allocative inefficiency since the price is greater than the marginal cost.

Its has also been noticed over time, that since there is no competition and monopoles can make profit without making much effort, inefficiencies could arise within the system. Inefficiencies in turn could lead to diseconomies of scale.

For a country like India, which has a large section of population currently out of employment as a result of COVID and its induced impact, monopoly can pose a very important challenge for the country. Many businesses and people are out of work and many others are operating at less than breakeven and at lower wages than before, respectively. In these circumstances and in the aftermath of the pandemic, a monopoly in significant employment generating sectors of the economy can exercise its monopsony power and pay lower prices to suppliers and lower wages to workers. The possible effects of such a power can be very damaging for an economy trying to regain its footing post pandemic.

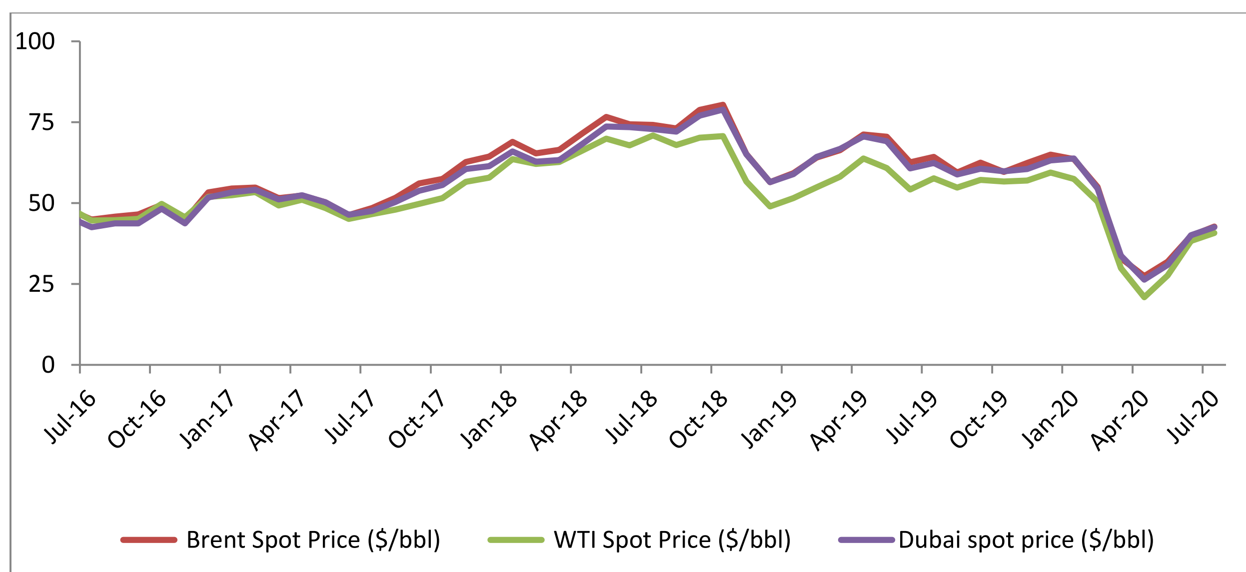
Oil Market

Crude oil price

Crude prices steadied in the month of July in the range of USD 40s per barrel as the demand slowly recovered globally. There was some minor decline in the weeks between due to higher inventory of crude and due to the second wave of Covid spread. With lockdown moving to unlocking phase in several nations, the demand for crude oil stood steady throughout the month of July. In the US, higher withdrawal of crude from the inventory helped the WTI benchmark to sustain in USD 40 range.

Average Brent, WTI and Dubai basket crude prices went up by 7.89 %, 5.98 % and 5.21 % respectively from their June prices.

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



Source: WORLD BANK

- Brent crude price averaged $ 42.80 per bbl in July 2020, up by 7.3% on a month on month (MoM) but down by 33.5 % on year on year (YoY) basis, respectively.
- WTI crude price averaged $ 40.80 per bbl in July 2020, up by 6.5 % on a month on month (MoM) but down by 29.2 % on year on year (YoY) basis, respectively.
- Dubai crude price averaged $ 42.60 per bbl in July 2020, up by 6.2% on a month on month (MoM) but down by 31.8 % on year on year (YoY) basis, respectively.

Table 1: Crude oil price in July, 2020

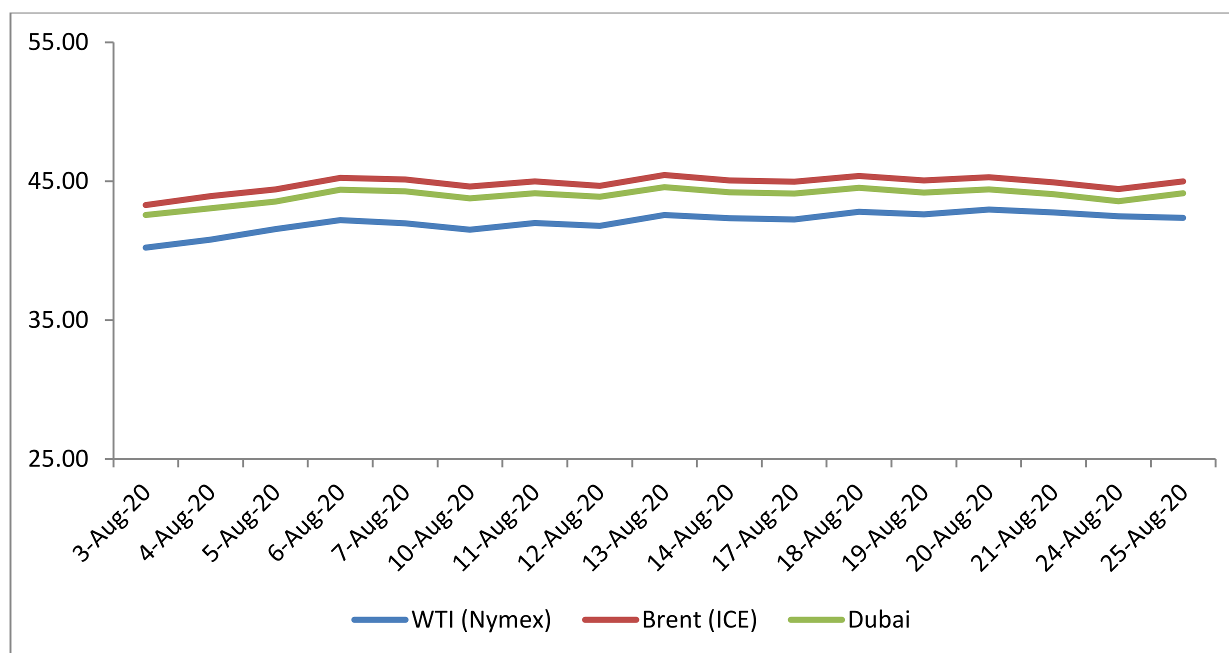
Crude oil	Price ($/bbl) in July 2020	MoM (%) change	YoY (%) change
Brent	42.80	7.3%	-33.5%
WTI	40.80	6.5%	-29.2%
Dubai	42.60	6.2%	-31.8%

Source: WORLD BANK

Oil Market stabilizes in USD 40 range in August

In the month of August, top global crude benchmarks stabilized in the range of USD 40-45 per barrel due to slight demand recovery and gradual opening up of economies worldwide. Production cuts of 7.7 mbpd from August by OPEC plus allies led to tightening of the market. Recovery in Asian region led by China helped in managing the extra production resulted due to the relaxation of production cuts. Stricter production cut compliance is expected to hold the crude prices for near term

Figure 2: Crude oil price in August 2020



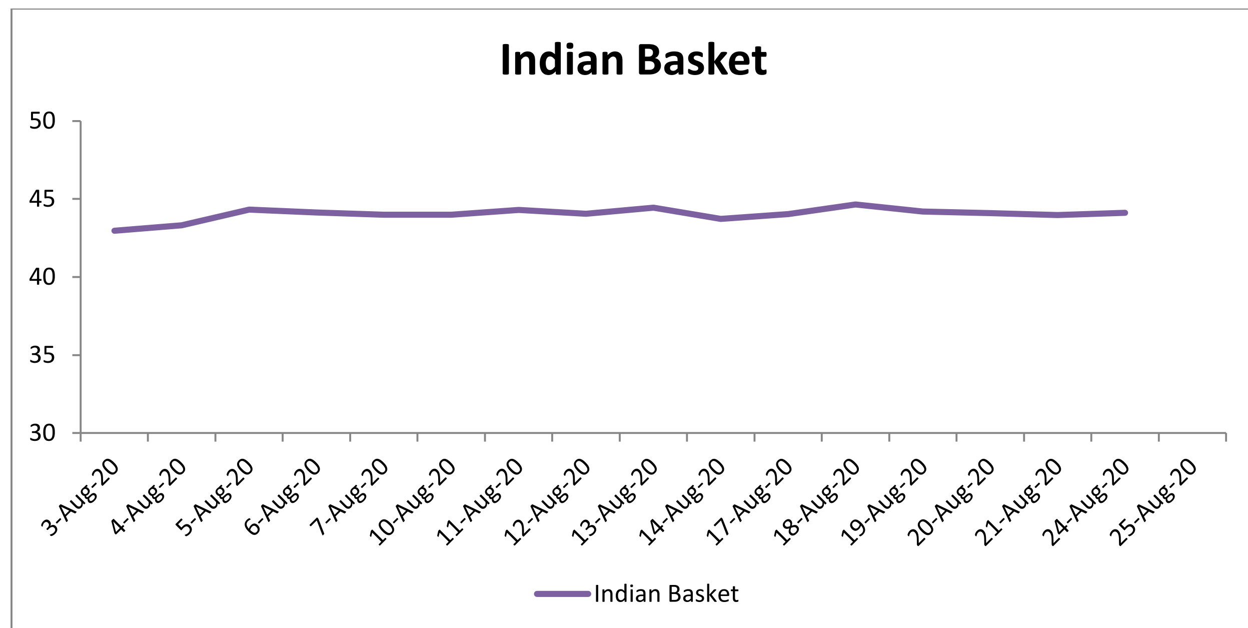
Source: EIA, Oilprice.com, PPAC

Recovery of demand for crude in OECD Europe was found to be more than the expected recovery leading to better positioning of crude benchmarks. Average Brent, WTI and Dubai basket crude prices went up by 4.68 %, 3.09 % and 3.19 % respectively from their July 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

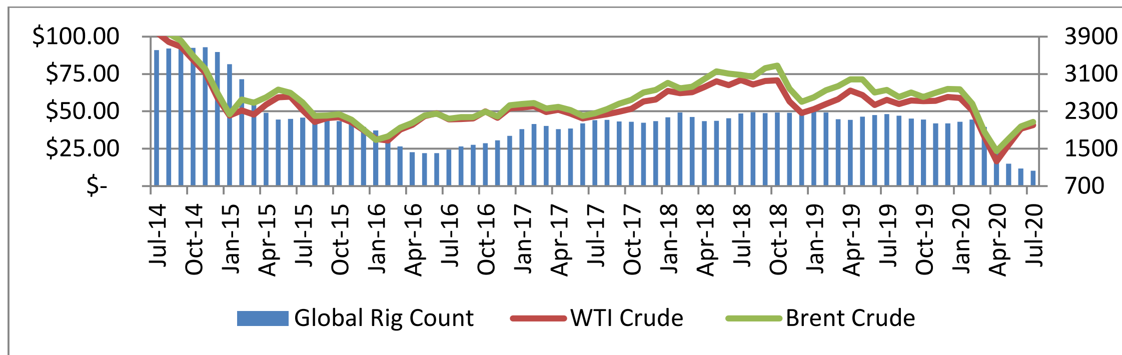
- Indian crude oil benchmark prices saw an increase as the global benchmarks used as its reference went up.
- Indian crude basket price averaged $44.02 per barrel in August, up by 1.40 % on Month on Month (M-o-M) but down by 25.32 % on a year on year (Y-o-Y) basis, respectively.

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

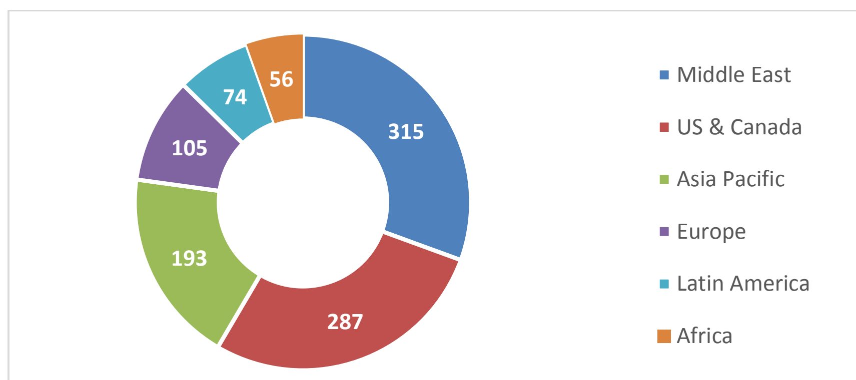
In July 2020, global drilling rig count declined by 43 from June 2020 and stood at 1,030. Onshore rig count decreased by 31 and offshore rig count went down by 12. Rig count continued to decline across the globe as companies focused on managing the cash flow to sustain the low oil price environment. With production cuts expected to stay longer than the initial time frame, E&P companies continue to reduce their drilling activities. In the month of July, rig count saw a marginal increase in Latin America, while all other regions namely Europe, Africa, Middle East, Asia Pacific and North America saw decline in rig count as companies continued to slash exploration and drilling due to the prevailing oil price. Despite the stability of price over last months, companies are prioritizing their CAPEX on the immediate operational needs only.

Table 2 : Global Drilling Rig Count

Rig Type	Count in July 2020	MoM (%) change	YoY (%) change
Land	834	-3.58%	-57.34 %
Offshore	296	-5.77%	-30.74%
Total	1,030	-4.01%	-53.98%

Source: Baker Hughes

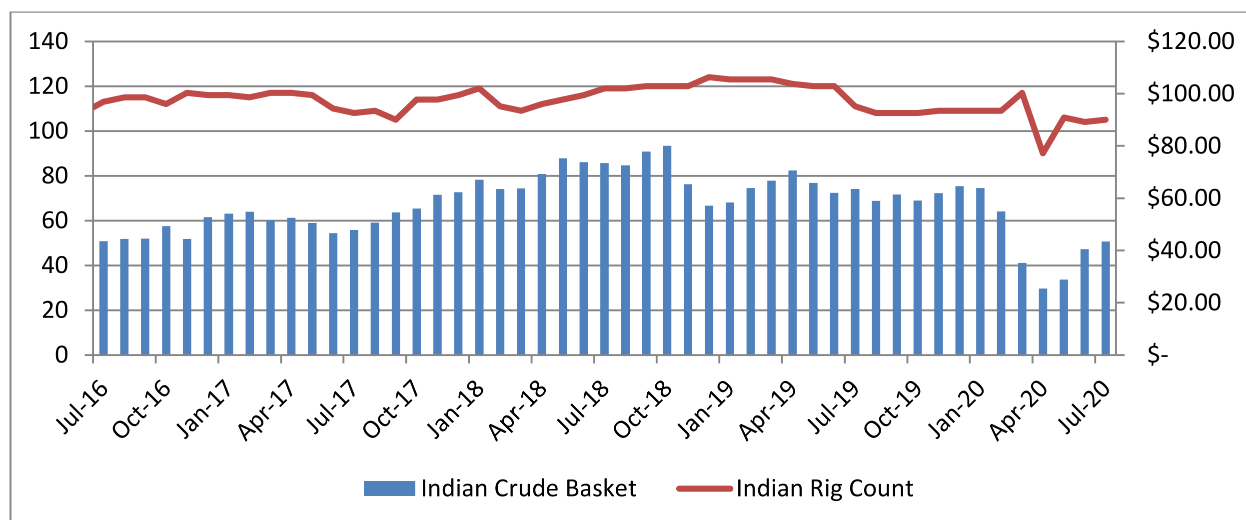
Figure 5 Geography-wise Rig count -July 2020



Source: Baker Hughes

Indian Drilling Rig Count

Figure 6 Indian Rig Count vs. Indian Basket Crude Price



Indian drilling market saw an increase in rig count by 1. Onshore rig count went up by 1, while offshore rig count stood at the same. On M-O-M basis, Indian rig count increased by 0.96 % and on Y-O-Y basis, Indian rig count declined by 5.41 %. 69 were onshore rigs and the rest 36 were offshore rigs.

Table 3 : Indian Rig Count

Rig Type	Count in July 2020	MoM (%) change	YoY (%) change
Land	69	1.47%	-12.66%
Offshore	36	0.00%	12.50%
Total	105	0.96%	-5.41%

Source: Baker Hughes

Oil demand & supply

Preliminary data indicates that global oil supply increased in July by 1.29 mb/d m-o-m to average 88.75 mb/d, down by 9.98md/d Y-o-Y. Non-OPEC supply (including OPEC NGLs) increased by 0.31 mb/d compared to June to average 65.58 mb/d in July 2020. On Y-o-Y basis, it was lower by 4.06 mb/d. Preliminary increase in production comes from OECD nations particularly Canada and Norway with an increase of 0.40 mb/d m-o-m. In July, share of OPEC crude oil in total global production increased by 0.7pp % to reach 26.1%.

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 estimated to decline by 9.1 mb/d in 2020, a downwards change by 0.1 mb/d as compared to June month's assessment. Downward revision is mainly due to the slower than expected

recovery in demand in a few non-OECD countries, in addition to the global DGO adjustment from -3.7% in July to -4.0% in August. On a quarterly basis, demand for 1Q20 was revised due to higher than expected oil demand in China, OECD Europe and Asia Pacific regions. In 2Q20, weaker than expected demand countered the actual expected demand. With softening in economic momentum, oil demand was further adjusted on lower side in the emerging economies

Oil demand growth in the OECD countries was revised higher by 0.1 mb/d for 2020. Majority of the upward adjustment comes from OECD Europe due to better-than-expected demand for heating fuels in Germany and Italy. In OECS Asia Pacific, better-than-expected demand for transportation fuels and petrochemical feedstock in South Korea led to upward revision. Demand for oil in non-OECD nations was revised lower by 0.2 mb/d for 2020 due to the weaker demand.

Total global oil demand is estimated to be 90.63 mb/d in 2020 with higher demand. Oil demand forecast for Q2 2020 was revised to 81.84 mb/d, with a downward revision of 0.10 mb/d. Similarly forecast for Q3 2020 and Q4 2020 is estimated to be 92.10 mb/d and 95.83 mb/d respectively, with a downward revision of 0.12 mb/d and 0.39 mb/d respectively.

Table 4: World Oil demand in mbpd	2019	1Q2020	2Q2020	3Q2020	4Q2020	2020	Growth	%
Total OECD	**47.88**	**45.40**	**36.04**	**44.13**	**45.77**	**42.85**	**-4.83**	**-10.13**
Dev. Countries	**33.11**	**31.36**	**28.48**	**30.41**	**31.33**	**30.40**	**-2.71**	**-8.20**
~ of which India	*4.84*	*4.77*	*3.60*	*3.85*	*4.74*	*4.24*	*-0.60*	*-12.44*
Other regions	**18.91**	**15.91**	**17.32**	**17.57**	**18.74**	**17.39**	**-1.52**	**-8.03**
~ of which China	13.30	10.70	12.75	12.67	13.58	12.43	-0.87	-6.55
Total world	**99.69**	**92.67**	**81.84**	**92.10**	**95.83**	**90.63**	**-9.06**	**-9.09**

Source: OPEC monthly report, August 2020

*Note: *2019 = Estimate and 2020 Forecast*

Global petroleum product prices

Refinery margins in Asia showed the strongest positive performance compared to other regions and the solid gains lifted figures into a positive territory followed by four months of below zero mark. Higher level of refinery maintenance activity in India and strong product import requirements from Japan and Philippines helped in achieving the gains. Refinery margins for Oman in Asia gained $2.00/b on m-o-m to average minus $1.26/b in July and were lower by $6.06 on y-o-y basis. Refinery utilization rates in July averaged 88.03 % in selected Asian markets comprising of Japan, China, India and Singapore.

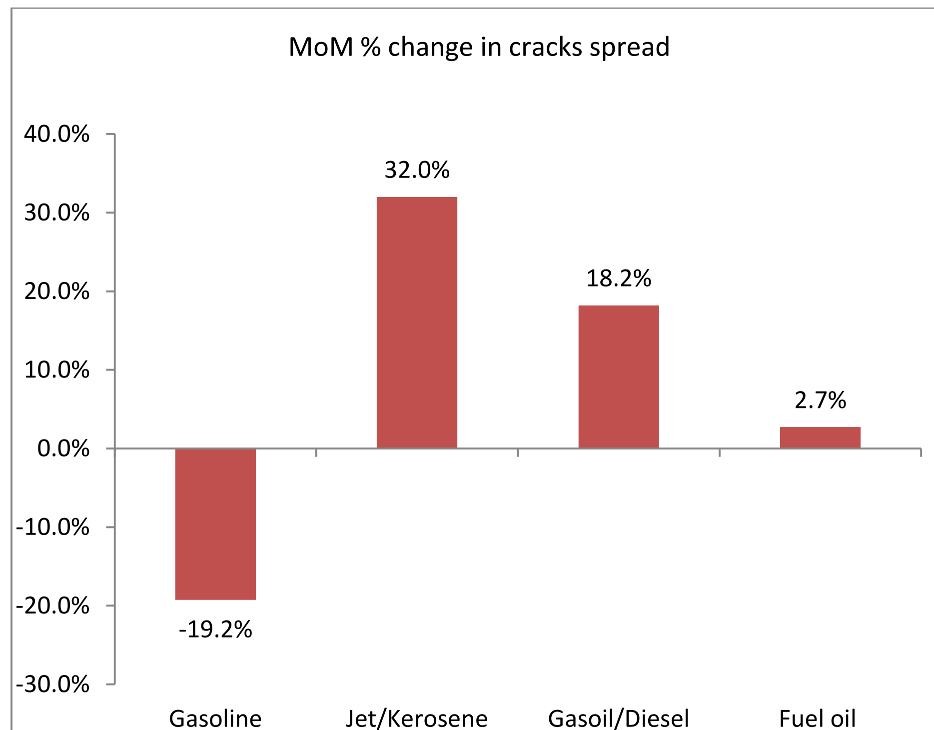
Asian gasoline 92 cracks spreads against Dubai weakened due to the oversupply environment and slower recovery in parts of China and South Asia. Additionally, Chinese state refineries increased exports of refined products to reduce the domestic stockpiles of motor fuels impacted the refinery margins for gasoline in Asia. Reports of news on Japanese cargo buying in July weren't enough to push the gasoline

cracks to positive territory. Singapore Gasoline cracks averaged $1.55/b against Oman in July, down by 49 ȼ m-o-m and by $ 26.35 y-o-y.

Jet/kerosene cracks spread against the Oman continued to trend upwards for the second straight month as air passengers went up by 19% m-o-m reaching 60% of the level witnessed an year ago. The Singapore jet/kerosene crack spread against Oman averaged 73 ȼ /b, up by 28 ȼ m-o-m but down by $14.49 y-o-y.

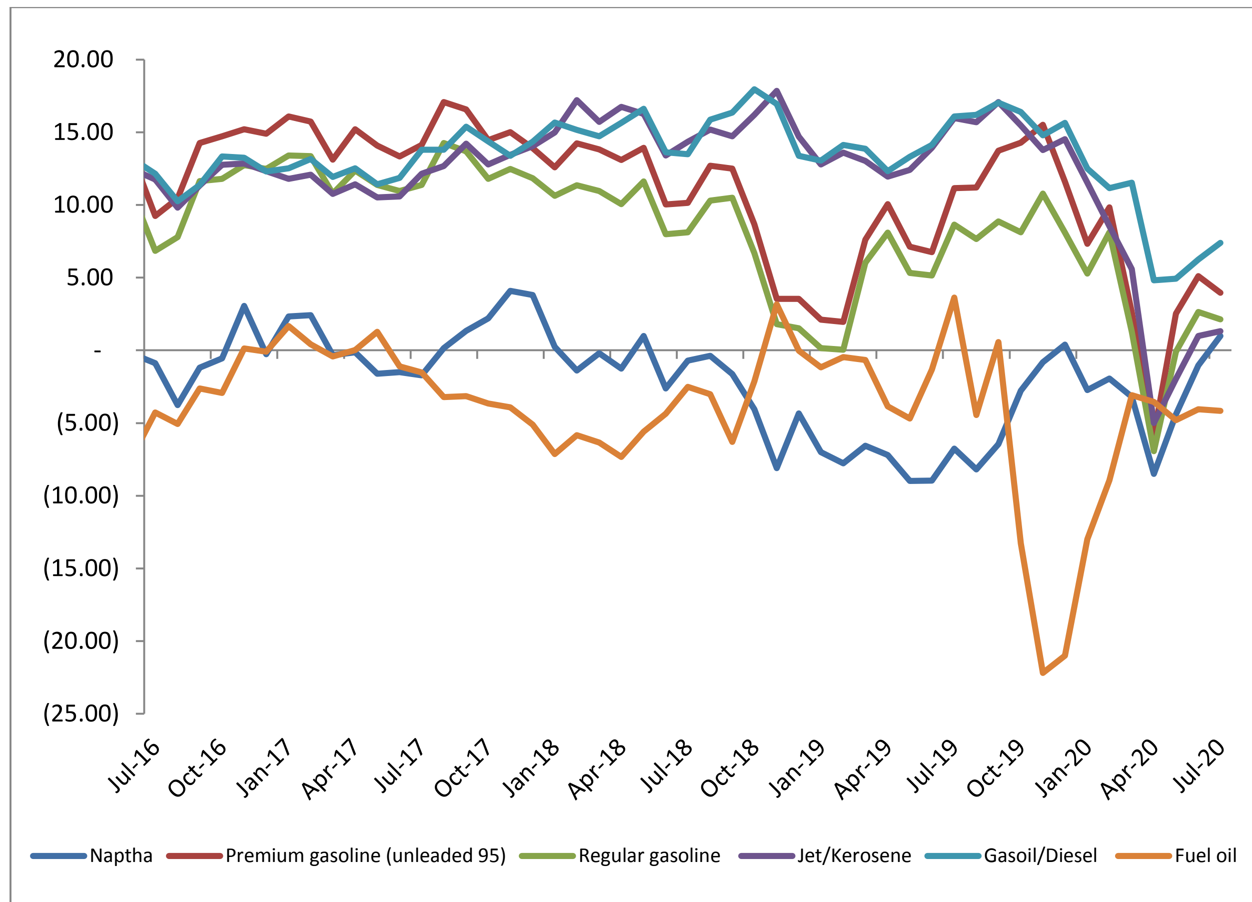
The Singapore gasoil crack spreads trended upwards in July due to strong imports into the Philippines which were up by 29% over y-o-y amid the lower refinery utilization in the country. Singapore gasoil crack spread against Oman averaged $6.63/b, up by $1.29 m-o-m but lower by $8.69 y-o-y.

The Singapore fuel oil crack spread weakened marginally due to strong volume inflows into the region despite the strong secondary unit feedstock requirement and pick-up in demand from the Middle East for utility sector. Singapore fuel oil cracks against Oman averaged minus $4.76, down by 9 ȼ m-o-m and by $7.63 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 July 2020	MoM (%) change	YoY (%) change
Naptha	**43.6**	11.6%	-21.7%
Premium gasoline (unleaded 95)	**46.56**	3.0%	-36.7%
Regular gasoline (unleaded 92)	**44.74**	4.7%	-37.1%
Jet/Kerosene	**43.92**	6.9%	-44.0%
Gasoil/Diesel (50 ppm)	**50**	7.9%	-36.3%
Fuel oil (180 cst 2.0% S)	**38.43**	6.6%	-41.8%
Fuel oil (380 cst 3.5% S)	**38.43**	10.9%	-41.3%

Source: OPEC

Petroleum products consumption in India

- In July 2020, petroleum products consumption a decline by 3.7 % as some state governments pushed partial lockdowns in an effort to reduce the spread of Covid-19
- Restriction on inter-state movements was impacted and it was visible from the drop in consumption of Diesel.
- LPG consumption saw an increase by 9.3 % M-o-M basis in July 2020 as more cylinders were issued under PMUY scheme.
- Increase in industrial activity led to increase in consumption of lubricants, greases and Pet coke as these products saw an increase in sales.
- ATF consumption was up by 5% air traffic went up gradually in the month of July.
- On yearly basis, petroleum product consumption was down by 11.4%.

Table 6: Petroleum products consumption in India, July 2020

Petroleum products	Consumption in '000 MT July 2020	MoM (%) change	YoY (%) change
LPG	2,270	9.3%	2.4%
Naphtha	1,284	10.0%	-1.9%
MS	2,263	-0.8%	-10.3%
ATF	233	5.0%	-65.3%
HSD	5,524	-12.3%	-19.2%
LDO	59	-3.4%	14.1%
Lubricants & Greases	374	14.8%	18.3%
FO & LSHS	498	-1.6%	-8.0%
Bitumen	389	-44.4%	-1.7%
Petroleum coke	1,633	2.3%	5.4%
Others	992	11.5%	-8.0%
TOTAL	15,676	-3.7%	-11.4%

Source: PPAC

Natural Gas Market

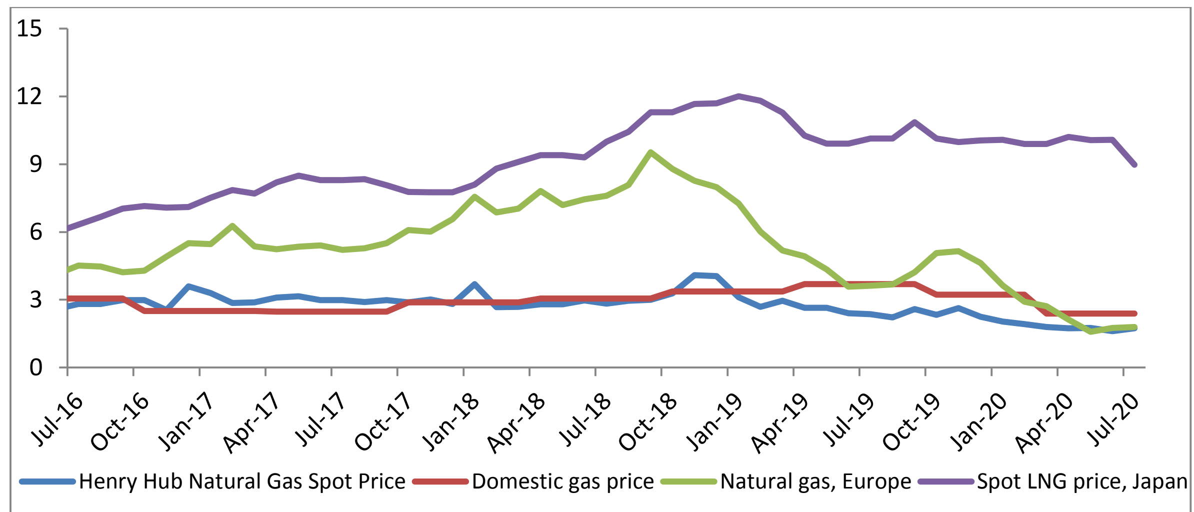
Natural Gas Price

Global gas prices had different pattern across different gas hubs across the globe. In the US, natural gas price increased by 8.1% and reached $1.74/MMBtu. Trimmed gas production levels by the operators led to the rise in price of natural gas in Henry hub. Also, there was in increase in demand for gas from US power generators and industrial end-users. Natural Gas price is forecasted to reach up to USD 2.21/MMBtu as the consumption is expected to increase.

Natural gas prices in Europe saw an increase in natural gas prices from their record low prices as the region saw promising recovery for natural gas demand. Price in the Europe went up by 2.9% to reach USD 1.80 .MMBtu. Reduced flow of gas from Russia helped in increase of natural gas price.

Asian LNG price jumped further in the month of July and reached 4 month high price of USD 2.70/MMBtu. Average LNG price for September delivery stood at USD 2.70/MMBTU. The market is bullish due to supply issues from Gorgon LNG and because of tight and firm gas markets in Europe and US. Japan LNG benchmarks decline by 11.5% due to rise in imports of LNG cargoes leading to market surplus situation.

Figure 8: Global natural gas price trends



Source: EIA, WORLD BANK

Table 7: Gas price

Natural Gas	Price ($/MMBTU) in July 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	1.74	8.1%	-26.3%
Natural Gas, Europe	1.80	2.9%	-50.3%
Liquefied Natural Gas, Japan	8.97	-11.0%	-11.5%

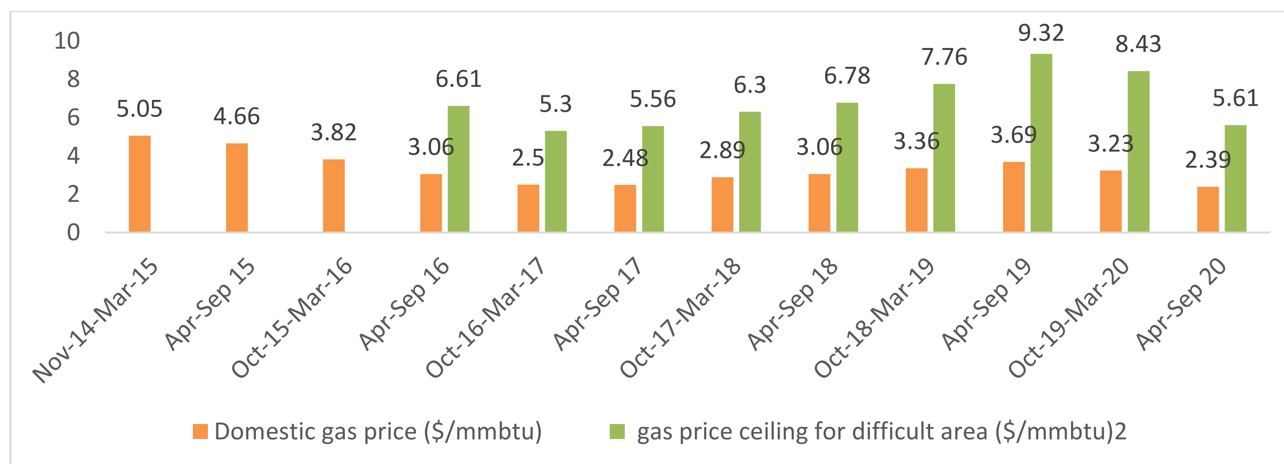
Source: EIA, PPAC, World Bank

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



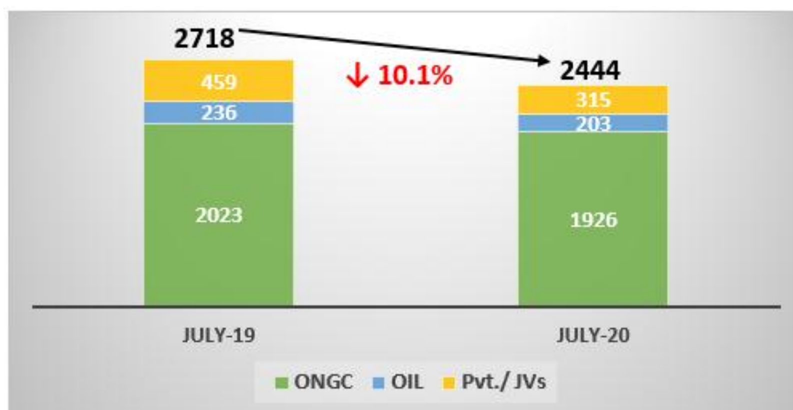
Source: PPAC

Natural gas production, imports and consumption – July 2020

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of July 2020 was 2444 MMSCM (decrease of 10.1% over the corresponding month of the previous year 2718 MMSCM)

Figure 10: Domestic natural gas Gross production (Qty in MMSCM)



Source: PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of July 2020 were 2963 MMSCM (increase of 6% over the corresponding month of the previous year 2795 MMSCM).

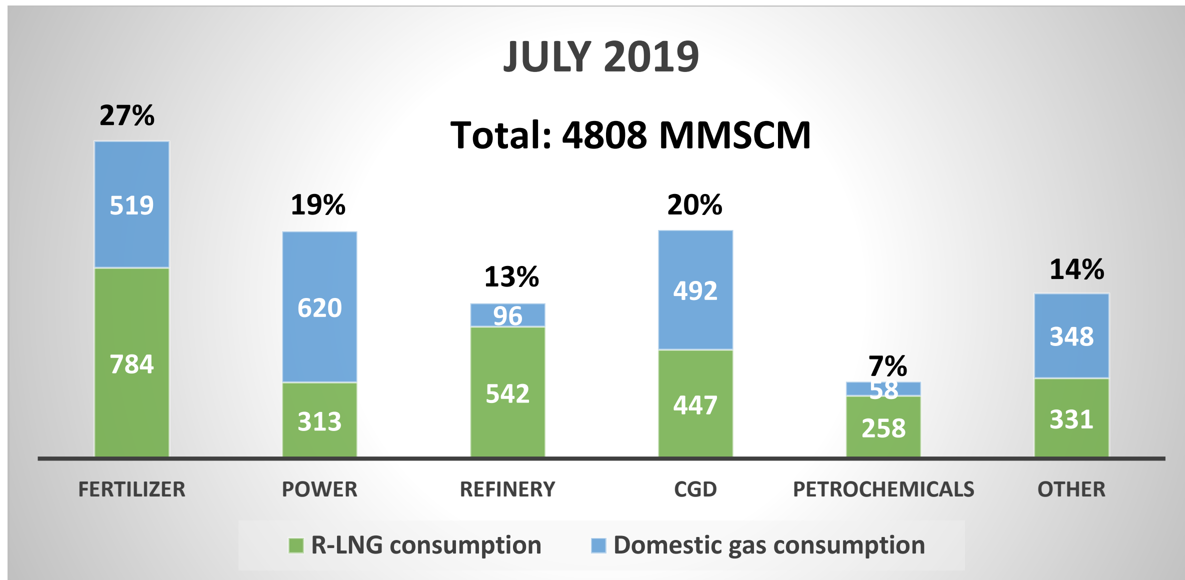
Figure 11: LNG imports (Qty in MMSCM)

Source: PPAC

3. Sectoral Consumption of Natural Gas:

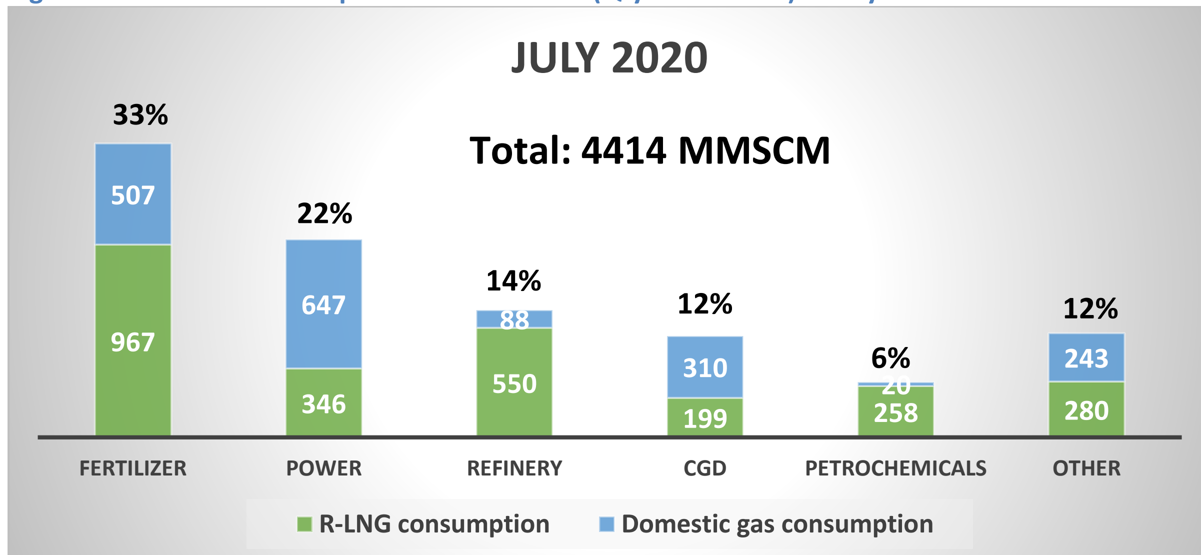
Total consumption of natural gas during July 2020 was 4414 MMSCM (decrease of 8.2% over the corresponding month of the previous year 4808 MMSCM). Major consumers were fertilizer (33%), power (22%), refinery (14%), City Gas Distribution (CGD) (12%) and petrochemicals (6%).

Figure 12: Sectoral Consumption of Natural Gas (Qty in MMSCM) in July 2019



Source: PPAC

Figure 13: Sectoral Consumption of Natural Gas (Qty in MMSCM) in July 2020



Source: PPAC

Key developments in Oil & Gas sector during August 2020

• Monthly Production Report for July,2020

Crude oil production during July, 2020 was 2,633.59 TMT which is 4.94% lower than target and 4.89% lower when compared with July 2019. Cumulative crude oil production during April-July, 2020 was 10,308.78 TMT which is 3.53% and 6.08% lower than target for the period and production during corresponding period of last year respectively.

Natural gas production during July, 2020 was 2,443.31MMSCM which is 12.41% lower than the monthly target and 10.10% lower when compared with July, 2019. Cumulative natural gas production during April-July, 2020 was 9,228.46 MMSCM which is 11.47% and 14.14% lower than target for the period and production during corresponding period of last year respectively.

Crude Oil Processed during July, 2020 was 17680.15TMT which is 12.36% lower than the target for the month and18.81% lower when compared with July, 2019. Cumulative crude throughput during April-July, 2020 was 66,309.54 TMT which is 18.27% and 21.40% lower than target for the period and crude throughput during corresponding period of last year respectively.

• Webinar on the occasion of the World Biofuel day organized

A webinar on the occasion of the World Biofuel day was organized on 10th August by the Ministry of Petroleum and Natural Gas, with the theme "Biofuels towards Atmanirbhar Bharat". World Biofuel Day is observed every year on 10th August to create awareness about the importance of non-fossil fuels as an alternative to conventional fossil fuels and to highlight the various efforts made by the Government in the Biofuel sector. World Biofuel Day is being celebrated by Ministry of Petroleum and Natural Gas since 2015. Biofuels programme is also in synergy with Government of India's initiative of Atmanirbhar Bharat and accordingly, the theme for World Biofuel Day 2020 has been chosen. In view of the Corona/ Covid-19 pandemic, the function was held through a webinar this year.

This day also honors the research experiments by Sir Rudolf Diesel who ran an engine with peanut oil in the year 1893. His research experiment had predicted that vegetable oil is going to replace fossil fuels in the next century to fuel different mechanical engines. Speaking on the occasion, Secretary, Ministry of Petroleum and Natural Gas Shri Tarun Kapoor said that India being a large agricultural economy, there is large amount of agricultural residues available, therefore the scope of producing Biofuels is immense in the country. He said that if we look at the Biofuels, there are three major areas- Ethanol, Bio-diesel and Biogas. "If we are able to exploit these three, then we can reduce our dependence on import of crude to a very large extent and import of gas also", he added. For this purpose, he called for including appropriate technologies, involving skilled and professional manpower, and financial institutions to provide funding. The secretary sought the support of the State Governments to the sector in a very big way because the agricultural residues and all the other wastes, which may come from the municipal solid wastes or other form of wastes all has to be collected segregated, managed and then supplied to various plants which may

come up. Shri Kapoor also called for sensitizing other stakeholders, primarily, the farmers and also the common public who may be producing wastes and not managing the wastes the way it should be managed so that it can further be used and converted into useful forms.

Biofuels have multiple benefits such as reduction on import dependence, ensuring a cleaner environment, generating additional income for farmers and employment generation. Since, 2014, the Government of India has taken a number of initiatives to increase blending of biofuels. The major initiatives include administrative price mechanism for ethanol, simplifying the procurement procedures by OMCs, amending the provisions of Industries (Development & Regulation) Act, 1951, Long term ethanol procurement policy, ethanol distillation capacity addition and enabling lignocellulosic route for ethanol procurement. Under the Ethanol Blending Program, OMCs have procured 113.09 Crore litres of Biodiesel from 01.12.19 to 03.08.20. Under the Biodiesel blending Program, OMCs have increased biodiesel procurement from 1.1 Crore litres during 2015-16 to 10.6 Crore litres during 2019-20.

- **Shri Gadkari calls for adopting advanced public transport models and use of biofuel, Electricity, CNG in Public Transport**

Union Minister for Road Transport & Highways Shri Nitin Gadkari has said that public transport may be modernised which is based on biofuels, CNG and electricity as fuel. Addressing a Webinar - 4th UITP India Bus Seminar today he said most of the State Road Transport Undertakings (SRTUs) are incurring huge expenditure on conventional fuels which are expensive. Shri Gadkari called for moving on to biofuels, CNG and Electricity as transportation fuel. This he said will not only save on fuel bill but also contribute to economy and pollution reduction. At present Shri Gadkari said country is spending huge amounts on import of crude oil/hydrocarbons, which he said, need to be reduced.

Referring to workability of the use of biofuels/CNG etc, he informed that Nagpur has started to convert 450 buses on to biofuels. As many as 90 buses have already been converted so far. He added that loss in bus service is about Rs 60 crore per year, which can be saved by converting buses into CNG. Shri Gadkari also informed that efforts are being made to produce CNG from sewage water. He called upon SRTUs to adopt this model for reducing losses which will help in providing better public transport. He further indicated at adopting other sources of CNG like paddy straw/parali, which have multiple benefits to farmers, transport, environment and economy.

The Minister called for adopting London Bus model harnessing utilisation of private capital for better public transport. He felt encouraging Public Private Partnership (PPP) may also be pursued. Shri Gadkari said, Bus Ports are being planned with all modern amenities. He suggested that adopting double-decker buses by the operators will also improve the efficiency of public transport. Shri Gadkari said, Bus operators may consider providing better services like good attendants, provision for entertainment tools like audio music, video films, etc which can fetch better returns.

- **PNGRB signs Memorandum of Understanding with ASME**

The Petroleum and Natural Gas Regulatory Board has signed a Memorandum of Understanding with American Society of Mechanical Engineers (ASME) on 17.08.2020. Smt. Vandana Sharma, Secretary, PNGRB signed the MoU on behalf of PNGRB and Mr. Thomas Costabile, Chief Executive Officer & Executive

Director, ASME signed on the behalf of ASME. This MoU has been signed as an initiative of the U.S.-India Gas Task Force – Regulations and Markets sub-committee constituted under the U.S.-India Strategic Energy Partnership between the Ministry of Petroleum and Natural Gas, India and US department of Energy for the bilateral energy cooperation.

This MoU has been established to develop joint collaboration between ASME and PNGRB to: - Facilitate communication between two organizations;

- Avoid duplication of work efforts where possible;

- Develop knowledge of the standards/regulations and conformity assessment systems;

- Draw on ASME's Standards expertise to further standards, certification and regulatory development for conformity assessment and inspection in Oil & Gas sector within India.

Speaking on the occasion, Mr. S. P. Garg complemented PNGRB and ASME for finalizing the MoU, which would facilitate in development of world class pipeline infrastructure as well as creation of pool of certified personnel for its safe

Research, analysis & compilation by:

Economic Policy & Planning Team -FIPI

Email: prai@fipi.org.in, Kaushiki@fipi.org.in

Note: The information contained herein is compiled from various sources considered reliable, but its accuracy and completeness are not warranted, nor are the opinions and analyses that are based on it. FIPI is not responsible for any errors or omissions, nor shall it be liable for any loss or damage incurred by reliance on information or any statement contained herein. While reasonable care has been exercised to ensure that no copyrights are infringed, in case there is any omission or oversight in this regard, we may please be informed immediately.