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FEDERATION OF INDIAN PETROLEUM INDUSTRY

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

JANUARY 2021

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Executive Summary

Global COVID-19 pandemic cases continued to increase through the month of January 2021. The US is still among the worst affected due to the pandemic recording close to 2 lakh cases every day. By the end of January, the global COVID-19 cases had reached 101 Million claiming over 2.19 Million lives. The resurgence of COVID in the US, Europe and Brazil has forced many countries to implement strict lockdowns that has taken a serious toll on the business and consequently on the economy in these region. Most developed countries have now rolled out their vaccination programs, however, the rising cases of the infection has posed a considerable threat to the global economy.

The global economy is faced with more difficult start of the new year than was expected. Through the month of January, 2021, while the COVID-19 infection cases have seen a sharp rise, the roll out of the vaccination programme is taking more time than anticipated. While the global economy is on path to a quick recovery, it may take longer to ignite and not be as healthy as previously forecast. In a recent revision, World Bank has already reduced the GDP growth forecast to 4 per cent for the year 2021. According to a recent IMF report '2021 Global Financial Stability Report Update', until vaccination reaches a vast majority of the world population, policy support from respective Governments will be absolutely crucial to drive the worldwide economic recovery.

Over the last two months, India has been among the very few countries in the world where the COVID-19 cases have witnessed a sharp decline. By the end of January, the number of COVID cases had already dropped to below 13,000 in the country. On 16 January, 2021, the Hon'ble Prime Minister of India has already roll out the vaccination programme in the country. At end of January 2021, the vaccination programme is already on full swing. The roll out of vaccine has also proved helpful for the economy and has built considerable confidence among businesses. At the end of January, India has already seen over 10.7 million cases of COVID-19 and has claimed over 1.54 lakh lives.

On 29 January, 2021, the Hon'ble Finance Minister of India Smt Nirmala Sitharaman presented the Economic Survey that details the state of the economy ahead of the government's Budget for fiscal year beginning April 1, 2021. The report highlights the expectations of a V shaped recovery in the country due to the ongoing vaccination drive, robust recovery in the services sector and growth in consumption and investment.

The union budget 2021 was announced by Hon'ble Finance Minister Smt. Nirmala Sitharaman on 1st February 2021. The budgetary announcements rested on six pillars — health & well-being, physical & financial capital & infrastructure, inclusive development for aspirational India, reinvigorating human capital, innovation & R&D, and Minimum Govt & Maximum Governance. While the PART B of the budget consisted of announcements on Direct and Indirect Tax. The highlight of this year's budget was a strong push towards health and well-being, and increased capital spending for infrastructure development.

Global crude benchmarks continued to raise in the month of January 2021 followed by the strong increase in December 2020. With OPEC and the allies agreeing to rollback production of crude oil, the prices rose on the controlled supply. For the month, crude benchmarks went up with significant percentage rise. Average Brent, WTI and Dubai basket crude prices in January went up by 9.81 %, 9.79 % and 9.43 % respectively from their December prices. Indian crude basket price averaged $54.60 per barrel in January 2020, up by 9.77 % on Month on Month (M-o-M) but down by 15.10 % on a year on year (Y-o-Y) basis, respectively.

Global rig count for the month of December went up by 30. From November's rig count of 1,074, it went up to 1,104. Recovery in crude oil prices increased the confidence of E&P players to resume the E&P activities. Onshore rig went up by 33 and offshore rigs went down by 3. Indian drilling rig count went up by 3 in the month of December to reach 81.

World oil demand in 2020 is estimated to contract by 9.8 mb/d. Total global oil demand is estimated to average around 90.00 mb/d. For 2021, world oil demand growth is revised up by 0.2 mb/d, to a growth of 5.90 mb/d. There is an uncertainty caused by the impact of Covid-19 which has reduced the demand forecast for 2021.

Asian product markets weakened, pressured by stronger crude prices that rose significantly in December. Refinery margins for Oman in Asia lost 19¢ on m-o-m to average 84 ¢/b in December and were higher by $ 2.06 on y-o-y basis. Refinery utilization rates in December averaged 89.83 % in selected Asian markets comprising of Japan, China, India and Singapore.

In December 2020, demand for petroleum products in India went up by 4.3% and reached the highest since February 2020. ATF consumption went by 15 % as government permitted the airlines to increase the number of flights in operation. Transport fuels namely Petrol and Diesel saw a small growth in demand by 1.5 % and 2.0 %. Increase in industrial activity helped in improvement of Lubricant & greases, Petroleum coke.

Natural gas prices went up in the month of December in European hub & Japan, while Henry hub saw minor decline in the price. Natural gas price in the Henry hub went down by 1.9 % to reach $2.54/MMBtu in the month of December. Natural gas prices in Europe went up significantly in the month of December with an increase of 21.1% in the month of December. In December gas price stood at USD 5.86/MMBtu, a new high in last one year. Asian spot LNG prices rallied up further higher in the month of December and stood at multi-year high on the account of stronger winter demand. Delivery price for February 2021, stood around $21 /MMBtu.

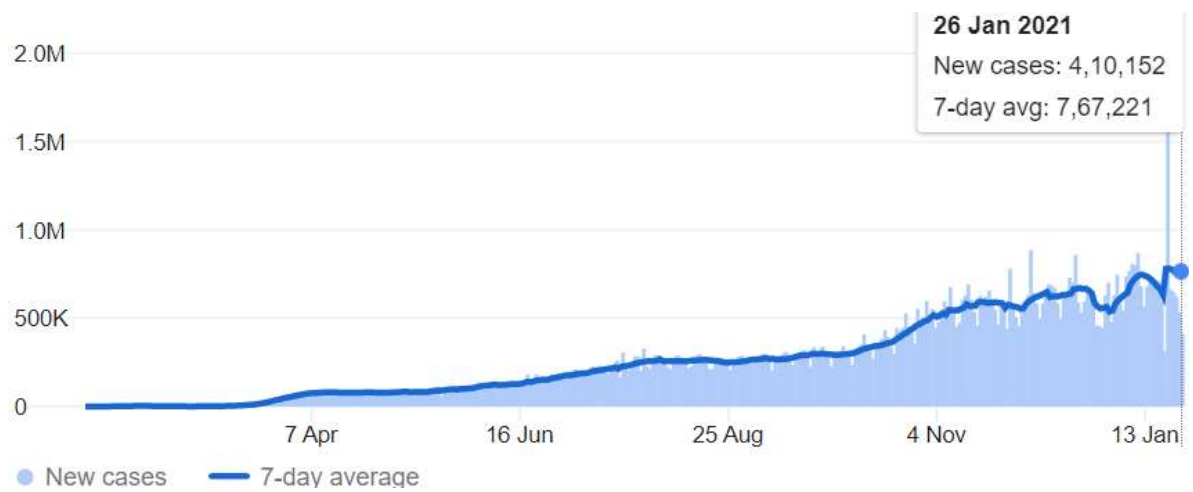
Policy & Economic report – Oil & Gas market

Economy in Focus

1. Snapshot of global economy: In face of rising COVID cases, fiscal and policy support from Government prove welcome relief

Global COVID-19 pandemic cases continued to increase through the month of January 2021. The US is still among the worst affected due to the pandemic recording close to 2 lakh cases every day. By the end of January, the global COVID-19 cases had reached 101 Million claiming over 2.19 Million lives. The resurgence of COVID in the US, Europe and Brazil has forced many countries to implement strict lockdowns that has taken a serious toll on the business and consequently on the economy in these region. Most developed countries have now rolled out their vaccination programmes, however, the rising cases of the infection has posed a considerable threat to the global economy.

Global COVID-19 cases



Source: World Health Organization (WHO)

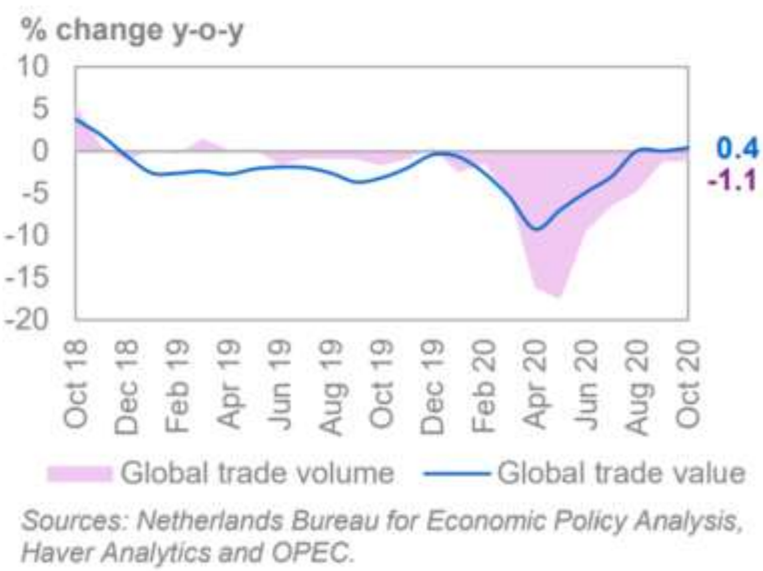
While a strong global economic recovery in 2021 remains very likely, the depth and magnitude of this year's rebound remains uncertain. New virus variants have emerged, there is still a considerable rise in infections – particularly in Western economies – and vaccination programmes in numerous large economies are off to a slow start, factors which may cloud the recovery at least for first quarter of 2021. While upside potential exists, the 2021 global economic growth forecast remains unchanged at 4.4 per cent.

Global

Most major economies around the world have shown considerable GDP growth during the third quarter of 2020. Growth prospects for both the US and Euro zone has now been revised upwards in the third quarter. A significant recovery has already been notices in Russia and Brazil. Recovery has been smooth sailing in both Asian majors China and India. This momentum was led by the manufacturing sector, while the contact-intensive services sector is still impacted by the consequences of the global pandemic. Global economic growth also picked up riding on the monetary stimulus measures across the globe. Spread of COVID-19 has softened the economic activities during the fourth quarter of the year and will also impact the first quarter of the year 2021. Ongoing monetary stimulus and additional fiscal measures in the US and the Euro-zone will provide major support going forward.

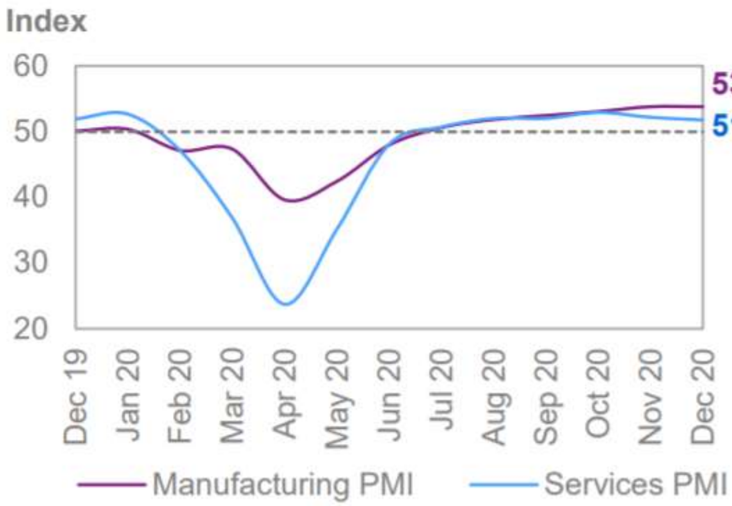
As result of the ongoing recovery, global trade levels continued improving. World trade volume levels declined by 1.1 per cent y-o-y in October, compared to -1.3 per cent y-o-y in September and -4.8 per cent y-o-y in August. Trade improved in value terms as well, rising by 0.4 per cent y-o-y in October, compared to 0 per cent y-o-y in September and 0.1 per cent y-o-y in August.

Global Trade



The global purchasing manager's Index published by IHS Markit supported the view of a continuation in the global recovery, albeit with a somewhat softening dynamic. The global manufacturing PMI stood at 53.8 in December, unchanged from November and compared to 53.0 in October. The global services sector PMI retracted slightly, standing at 51.8 in December, compared to 52.2 in November and 52.9 in October.

Global PMI



Sources: JP Morgan, IHS Markit, Haver Analytics and OPEC.

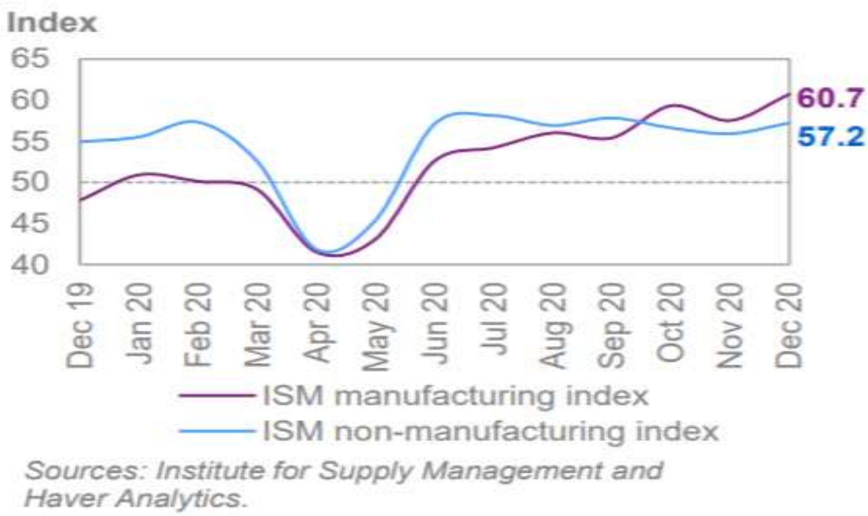
The US

According to the Bureau of Economic Analysis the US GDP grew at 33.4 per cent during the third quarter of 2020. While private household consumption was a major contributor, with a growth rate of 41 per cent, the end of important social welfare programmes as part of 2020 fiscal stimulus packages obviously negatively impacted consumer confidence in last quarter of the year. Consumer confidence in the country dropped to 88.6 in December from 92.9 in November. As a result, retail sales in the country softened but still grew at around 4.5 per cent in November. In this environment, the recently announced stimulus package of around USD 900 billion was indeed of great importance in order for a sustainable rebound to continue.

Industrial activity in the US was also affected by a slowdown in November. During the month industrial activity dropped by 5.5 per cent compared to 5 per cent yoy in October. The country also saw a fall in export growth during the month with a monthly growth of 0.4 per cent yoy in November after growing at 1 per cent in October. The labour market's improvement stalled in December, as the unemployment rate remained unchanged at 6.7 per cent. Also, non-farm payroll numbers fell by 140,000. This is the first decline in non-farm payrolls since April, when the COVID-19 pandemic caused the loss of almost 21 million jobs in the US economy.

The economy's recovery is reflected in December PMI levels as provided by the Institute for Supply Management (ISM), indicating a pick-up in the coming months. The manufacturing PMI rose to 60.7 in December, compared to 57.5 in November and 59.3 in October. The services sector index rose to 57.2, compared to 55.9 in November and 56.6 in October.

Euro Zone PMI

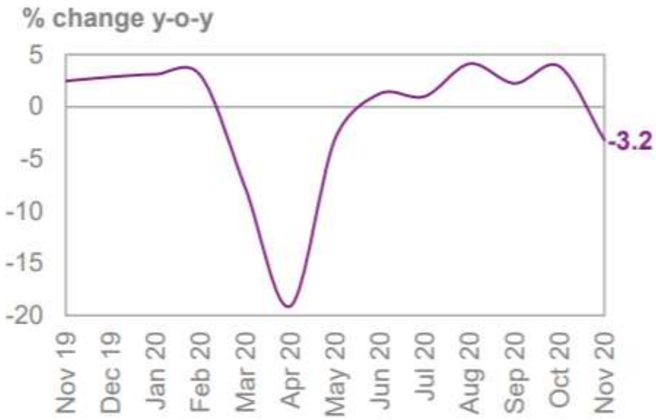


Euro Zone

In the new year, the Euro zone continues to be largely affected by the pandemic. Most countries in this region have extended the COVID-19 inflicted restrictions to well into the first quarter of 2020. The impact of the lockdown, though less than the first quarter of 2020, has been strong on the regions's economy during the last quarter of 2020 and in the new year. . In this environment, it was positive to see that the EU budget, including the addition of fiscal stimulus measures through a rescue fund, was agreed in December. This provides the EU with 750 billion euros to help the most challenged economies in the Euro-zone overcome the current challenges. As a response to this slowdown, the European Central Bank (ECB) increased its accommodative monetary policy measures at its December meeting, when the ECB announced that it would increase the size of its pandemic emergency purchase programme (PEPP) to 1.85 trillion euros and that it would extend this programme to at least March 2022.

The monetary support and the fiscally driven social programme proved successful in supporting the labour market in the region. Consequently, the unemployment rate ion the region dropped to 8.3 per cent in November compared to 8.4 per cent in October. Retail sales growth in value terms increased again in November, falling by 3.2 per cent y-o-y, after rising by 3.9 per cent y-o-y in October. Industrial production (IP) improved in October, declining by 3.6 per cent y-o-y, compared to a contraction of 6.2 per cent y-o-y in September.

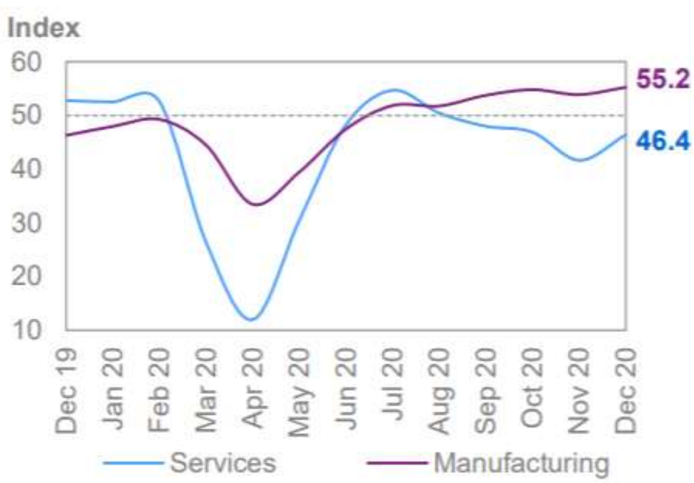
Euro Zone Retail Sales



Sources: Statistical Office of the European Communities and Haver Analytics.

The December PMI for the Euro-zone economy reflects gradual improvements. The manufacturing PMI rose to 55.2 in December from 53.8 in November and 54.8 in October. The PMI for services, the largest sector in the Euro-zone, rebounded to 46.4 in December, compared to 41.7 in November.

Euro Zone PMI



Sources: IHS Markit and Haver Analytics.

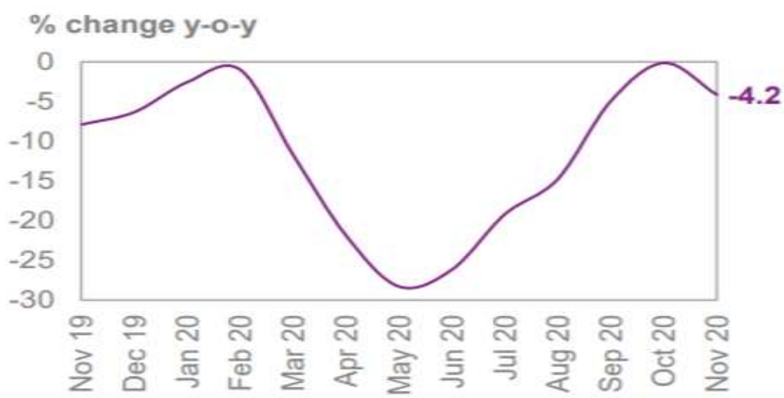
Japan

Recent data shows that the strong recovery seen in Japan during the third quarter of 2020 has softened in the fourth quarter. As in other major OECD economies, the rebound was supported by the recovery in manufacturing as a consequence of the improvement in global trade. Japan's exports have recovered in recent months, providing solid support to the Japanese economy via various spill over effects. The recent surge in COVID-19 cases, especially in Tokyo, has led to new lockdown and social-distancing measures, which have already negatively impacted the prospects for the first quarter 2021. Most indicators from

Japan show a strong recovery in the second quarter 2020. However, slow growth in retail sales has raised serious questions on the domestic consumption.

Exports have recovered in recent months fuelled by a rebound in global trade. Exports declined slightly by 0.3 per cent in November after a rise of 2.7 per cent in October. On a yearly basis, this is a decline of 1.6 per cent y-o-y in November and a decline of 1.9 per cent y-o-y in October. However, these represent a strong improvement compared to the decline of more than 20 per cent between April and July.

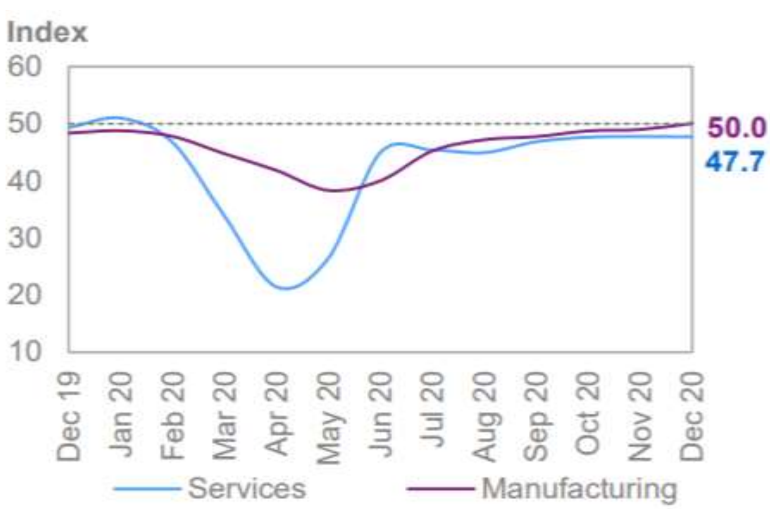
Japan's exports



Sources: Ministry of Finance, Japan Tariff Association and Haver Analytics.

PMI shows a gradual recovery in the Japanese manufacturing sector. However, the domestic services sector is still faced with stiff challenges. The manufacturing PMI rose to 50 in December, compared to 49 in November. The PMI for the services sector, which constitutes around two-thirds of the Japanese economy, remained almost unchanged, standing at 47.7 in December, compared to 47.8 in November.

Japan PMI



Sources: IHS Markit, Nikkei and Haver Analytics.

China

The Chinese GDP grew at a staggering rate of 4.9 per cent YoY in the third quarter of 2020, following a growth of 3.2 per cent in the second quarter. The economy maintained this momentum in the last three months of 2020 as both demand and production continued to pick up. Moreover, China's retail trade recorded the fastest growth since December 2019, rising 5.0 per cent y-o-y in November 2020. On the policy front, the government announced the 14th Five-Year Plan that was supposed to begin in 2021 and target slower but higher-quality growth.

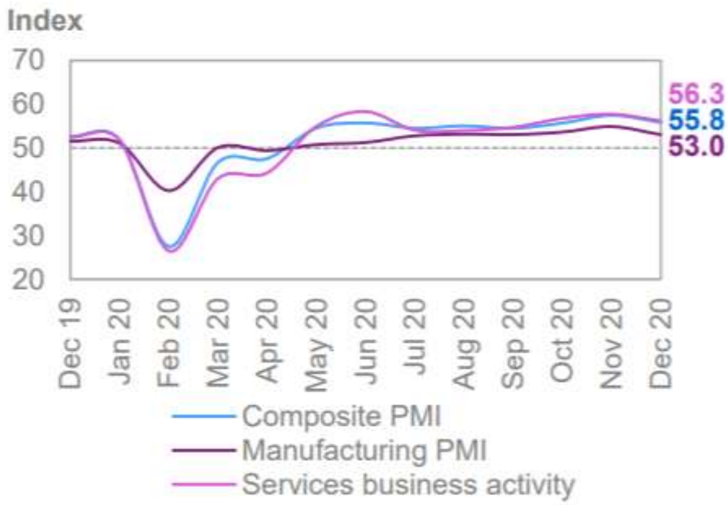
In November, industrial production in China increased by 7 per cent yoy compared to the 6.9 per cent y-o-y expansion in October and the highest since March 2019. During the second half of the year 2020, industrial sector in China witnessed an impressive turnaround, supported by policies and robust exports.

China Industrial Activity

Sources: China National Bureau of Statistics and Haver Analytics.

With fiscal policy possibly shifting towards supporting household consumption, China's business confidence could continue to rise and support further economic growth. China's general manufacturing PMI published by Caixin I fell to 53 in December 2020 from 54.9 the previous month, while the services PMI fell to 56.3 in December from 57.8 in November. Despite these declines, strong growth continues in services and manufacturing due the recovery in private consumption following the curbs enacted during the COVID-19 outbreak. Moreover, rising external demand could be an additional recovery driver considering the increased need for virus-related products and services.

China PMI



Sources: Caixin, IHS Markit and Haver Analytics.

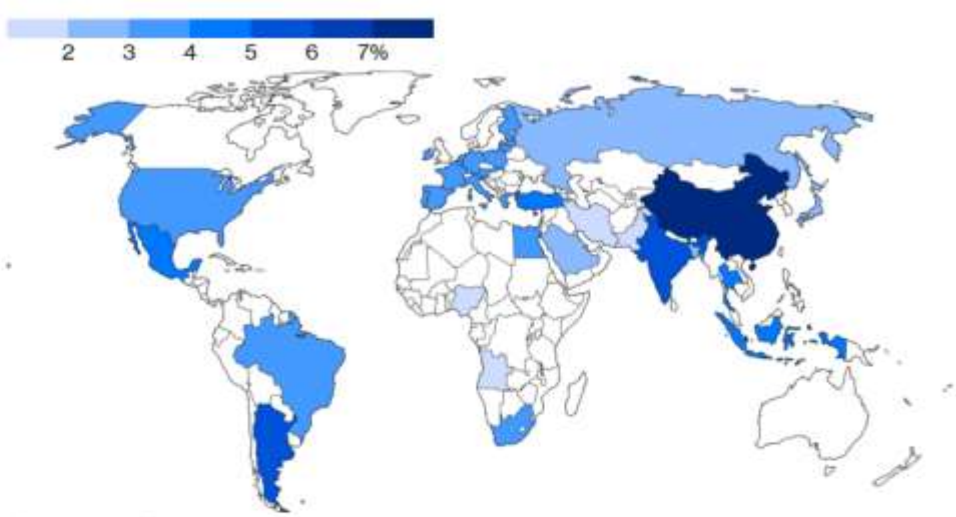
2. Slower than expected roll out of vaccination programme, keeps recovery subdued in 2021

The global economy is faced with more difficult start of the new year than was expected. Through the month of January, 2021, while the COVID-19 infection cases have seen a sharp rise, the roll out of the vaccination programme is taking more time than anticipated.

While the global economy is on path to a quick recovery, it may take longer to ignite and not be as healthy as previously forecast. In a recent revision, World Bank has already reduced the GDP growth forecast to 4 per cent for the year 2021.

2021 GDP Forecast

The World Bank predicts the global economy will grow 4% this year

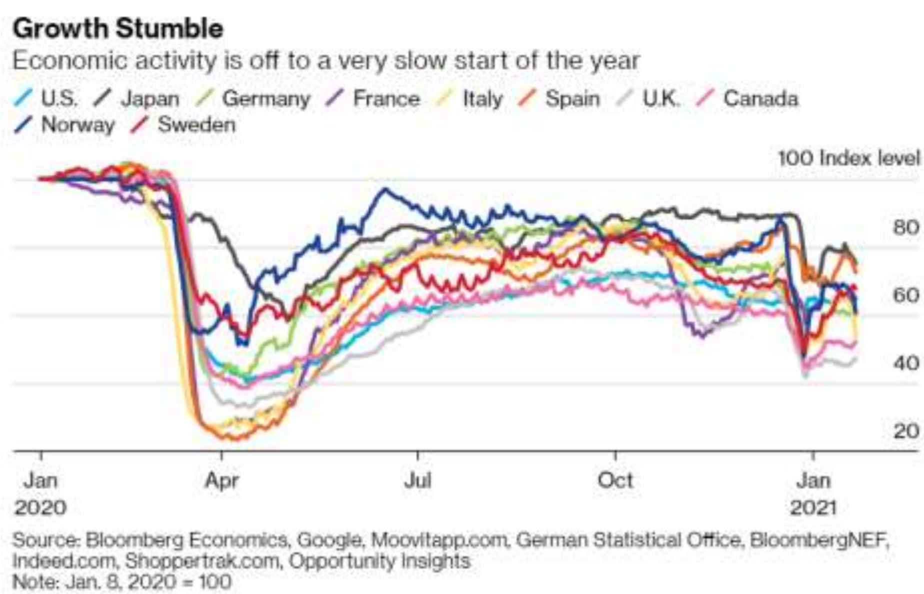


Source: World Bank

As Japan, the Euro-Zone and the UK implement more restrictions to curb the growth of COVID-19 infections, a double dip recession is expected in these regions. Record cases in the U.S. are dragging on retail spending and hiring, prompting President Joe Biden's new administration to seek an extra USD 1.9 trillion worth of fiscal stimulus.

Over the last year, China is the only country that has managed a V-shaped recovery after containing the disease early, however, consumers in China are still concerned about the partial lockdown implemented in the country.

A report by Bloomberg Economics reports that all high frequency indicators point to a troubling start to the year with advanced economies beginning on a weak note and emerging economies diverging. The report further underlines that these indicators are only a representation of the on ground reality that return to normalcy is an unlikely prospect before the widespread distribution of the vaccine.



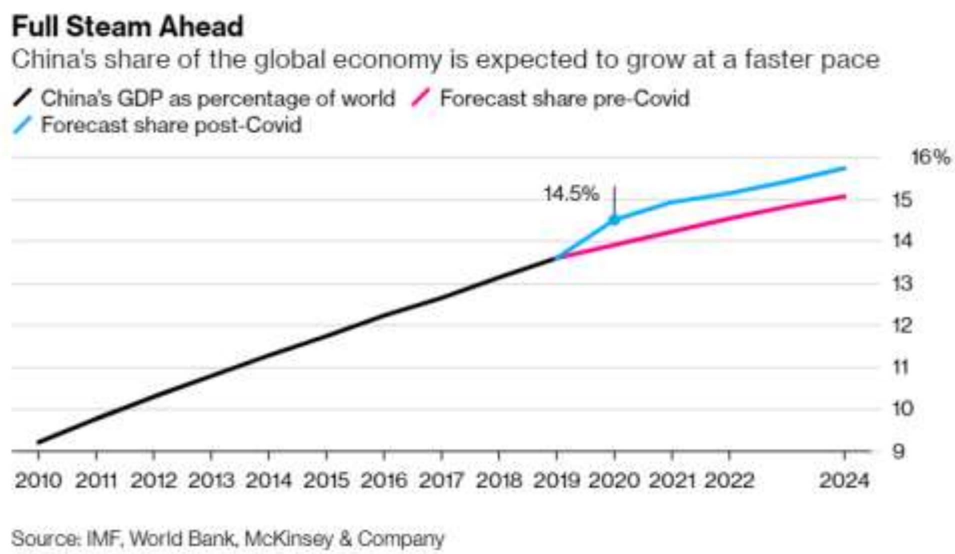
The outlook still remains largely gloomy after USD 12 trillion worth of fiscal support and trillions in central bank money printing failed to cement a recovery.

Positivity in market

Even as the economic outlook has darkened as the weeks of 2021 ticked by, financial markets have continued to rally on optimism government stimulus and the vaccine roll out will drive a recovery. Global stock markets have already reached an all time high. Most developed countries in the world including U.S., Britain and European Union are delivering vaccines, giving rise to a scenario where some part of the world reaches herd immunity, while those in poorer countries continue to suffer. The World Health Organization (WHO) has already warned the richer countries that their economic situation will not really improve until they do not help the developing countries speed up their vaccination programmes.

If the rollout of vaccines in poorer countries maintains its current trajectory, advanced economies faces an output loss of up to USD 2.4 trillion of their annual gross domestic product before the pandemic because of disruptions to trade and supply chains. Erik Nielsen, group chief economist at Unicredit SpA has highlighted that while there is light at the end of the tunnel, there is still a long and difficult road ahead before we are out. He further emphasized that so long as a part of the world is still plagued with the spread of the virus normalcy is difficult to return anywhere.

The optimistic outlook rests on authorities getting the vaccine out on a material scale by mid-year and neutering the threat of more transmissible variants of the virus. The ongoing provision of easy monetary policy and hope that governments won't pull back their support prematurely as some did after the financial crisis should also assist.



Lockdowns and other restrictions on movement also appear to be having less of a detrimental economic impact this time than last year as consumers and business have found ways to adapt.

3. Government policy support absolutely essential for post-pandemic global recovery: IMF

As we head into the new year, markets are receiving much-needed fillip from earlier-than-anticipated approvals and distributions of multiple vaccines that has raised the moods and placed high hopes of a swift recovery from the damage caused to the global economy due to the pandemic. According to the recently released '2021 Global Financial Stability Report Update', until vaccination reaches a vast majority of the world population, policy support from respective Governments will be absolutely crucial to drive the worldwide economic recovery.

According to most economists, the overall picture of the world economy will not be entirely positive as some countries are likely to experience a slowdown in the fourth quarter of 2020 as coronavirus cases surged. However, investors are still pinning high hopes on about growth in 2021, especially with the consideration of government support, such as through measures like keeping interest rates low. Tobias Adrian, financial counselor and director of the Monetary and Capital Markets Department at the IMF has pointed out that "the baseline is only one where financial conditions remain accommodative for some time, so we do not believe that we are close anywhere to the point where policies should be tightened." He further pointed out that "Premature withdrawal of monetary or fiscal support is actually a big risk, so until we are out of this pandemic, until the medical issues have been solved, we certainly advise our membership to continue the substantial monetary and fiscal support."

The IMF report argues that until a stable recovery takes hold, policymakers should not withdraw support, which would perhaps jeopardize the global economy. The report further mentions that policymakers should be well placed to contain the rising vulnerabilities to maintain growth. The report also warned against normalizing policy, especially among advanced economies, with the risk of uneven recovery globally, jeopardizing capital flows to emerging markets. One way the world could face a bumpy recovery, the report explains, is with uneven vaccine distribution going forward.

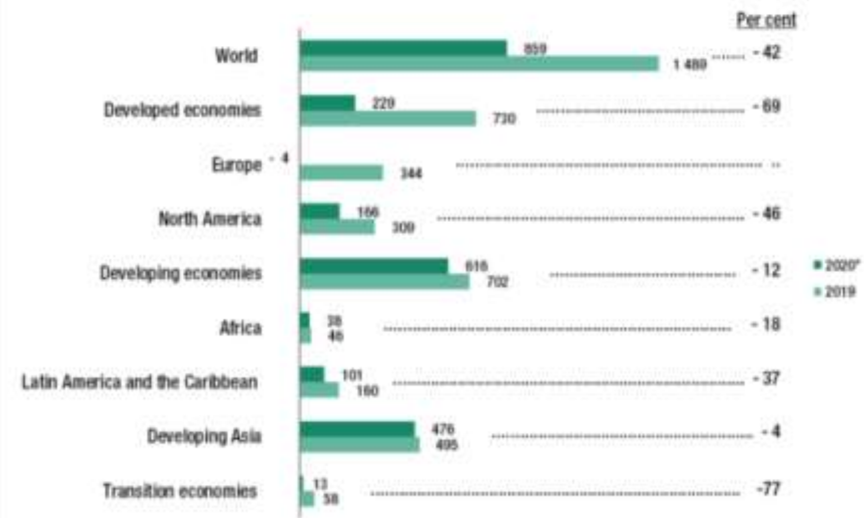
The report mentions that there is an issue in terms of recovery and in case of an asynchronous some of the countries may lag behind and lose market access leading to a tightening of financial conditions. This may result in an increase in poverty and inequality. This will be important to tackle the pandemic as a global issue at the global level, and that there is an equitable, even distribution of vaccines across the globe.

Uneven vaccine distribution globally is possible, if not likely, because countries with advanced economies such as the United States, Canada, the United Kingdom, and some countries in the European Union, have pre-existing, pre-purchased vaccine orders, while negotiations on obtaining doses for the rest of the world are severely lagging. According to the report, emerging market economies account for 65 per cent of global economic growth, meaning an incomplete global recovery would have significant implications for the global financial system.

Although liquidity strains have been mitigated by policy so far, the report also predicts that solvency pressures will continue to pose a threat in 2021, chiefly among vulnerable sectors already reeling from the pandemic. In the U.S. and U.K., the report notes, an elevated potential exists for further downgrades. In China, addressing vulnerabilities will likely continue to be a priority in 2021.

The findings of the IMF report are in line with the figures published by the UN this this week highlighting how foreign direct investment (FDI) – an important measure of a country's economic health – sharply fell last year for most countries as they battled to contain the coronavirus. During 2020, global investments fall by almost 42 per cent.

Figure 2. FDI inflows by region, 2019 and 2020*
(Billions of US dollars)



Source: UNCTAD.
* Preliminary estimates.

The report published by the UN conference shows that China has surpassed the US for the first time in attracting the most FDI, and that FDI in China as well as India actually increased between 2019 and 2020. According to the report FDIs in the Europe almost dried up during this period.

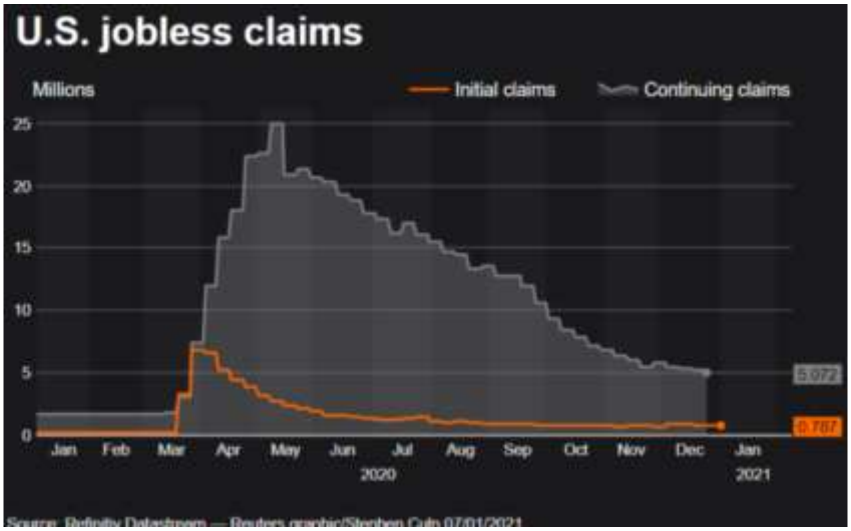
4. New claims for jobless benefits in the US flatten in December, still well above the peak seen during 2007-09

Over the month of January, the number of Americans filing first-time claims for jobless benefits has witnessed an unexpected fall as the recovery in the labour market appears to stall due to the raging COVID-19 pandemic cases.

Layoffs announced by U.S. companies surged 18.9 per cent in December. While the services industry performed better in December, the employment rate continued to fall. The US economy, in December, lost jobs for the first month since April, 2020. Still, the economy is unlikely to slide back into recession after the government approved additional pandemic relief in late December, with more fiscal stimulus likely.

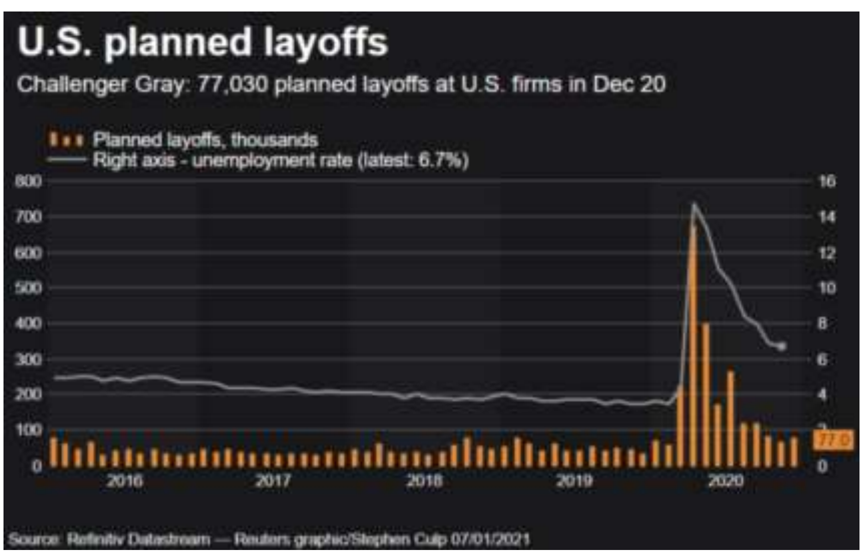
Ryan Sweet, a senior economist at Moody's Analytics pointed out that the labor market will struggle this winter because of surging COVID-19 cases. He further added that the good news is additional support, which is likely coming in the first quarter. According to Sweet, this will provide the much needed fillip to the US economy.

In a recent release the US labour department mentioned that initial claims for state unemployment benefits dipped 3,000 to a seasonally adjusted 787,000 for the week ended January 2, compared to 790,000 in the last week of December. Claims were likely held down by difficulties adjusting the data for seasonal fluctuations around this time of the year. Unadjusted claims jumped 77,400 to 922,072 in January. Including a government-funded program for the self-employed, gig workers and others who do not qualify for the regular state unemployment programs, 1.08 million people filed claims in the first half of January.



The rise in unemployment benefit claims are in line with other data that have suggested the economy was taking a beating from business restrictions and retrenchment in consumer spending because of the pandemic.

The number of COVID-19 cases in the United States have jumped to more than 21 million, with the death toll exceeding 356,000 since the virus first emerged in China in late 2019. In December, US companies announced 77,030 job cuts, recording a significant rise from 64,797 in November. That brought total layoffs in 2020 to a record 2.305 million, a 289 per cent surge compared to 2019. Nearly half of the job cuts were due to the pandemic.

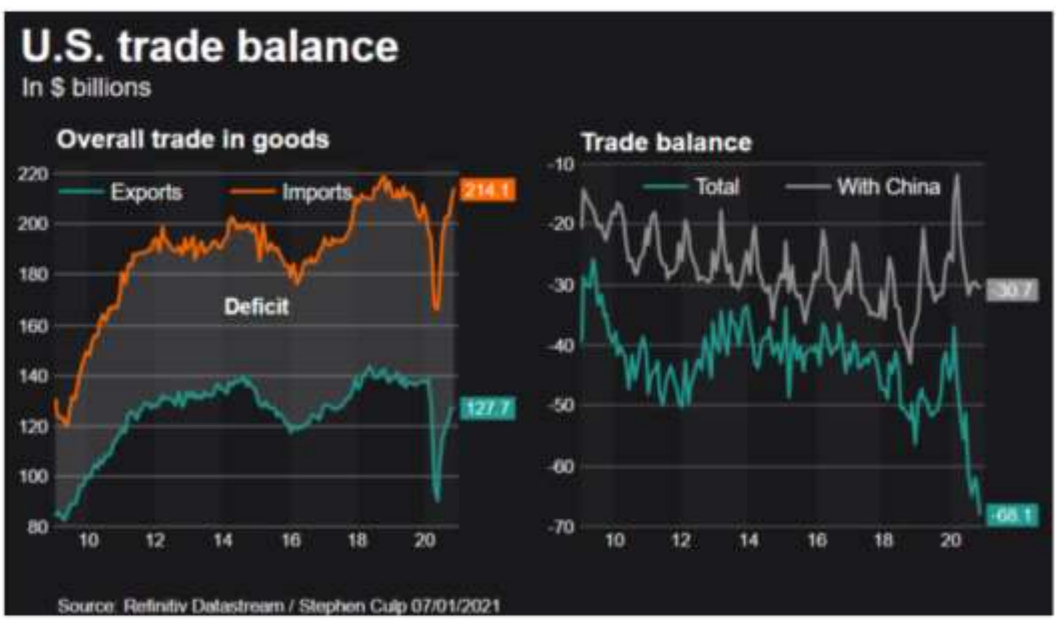


Separately, the Institute for Supply Management (ISM) said its index of services industry employment dropped to a reading of 48.2 last month from 51.5 in November. The ISM said comments from companies included less staff needed in restaurants due to restrictions and we had to reduce our workforce even further.

Huge expenditure on benefits

According to the employment report published by the Government, nonfarm payrolls increased by 71,000 jobs in December after rising by 245,000 in November. That would be the smallest gain since the jobs recovery started in May and mean the economy recouped about 12.5 million of the 22.2 million jobs lost in March and April. While the jobless claims have remained well above its peak of 665,000 seen during the recession of 2007-09, they have dropped from the record levels seen during March, 2020. The government in late December approved nearly USD 900 billion in additional fiscal stimulus, including the renewal of a USD 300 unemployment supplement until March 14. Government-funded programs for the self-employed, gig workers and others who do not qualify for the state unemployment programs as well as those who have exhausted their benefits were also extended in the package.

The US economy entered a phase of recession in February, 2020. The economy is expected to have expanded at an annualized rate of 5 per cent in the fourth quarter but that could largely be attributed to the rebuilding of inventories. A recent report from the US Department of Commerce showed the trade deficit widened 8.0 per cent to USD 68.1 billion in November, the highest since August 2006.

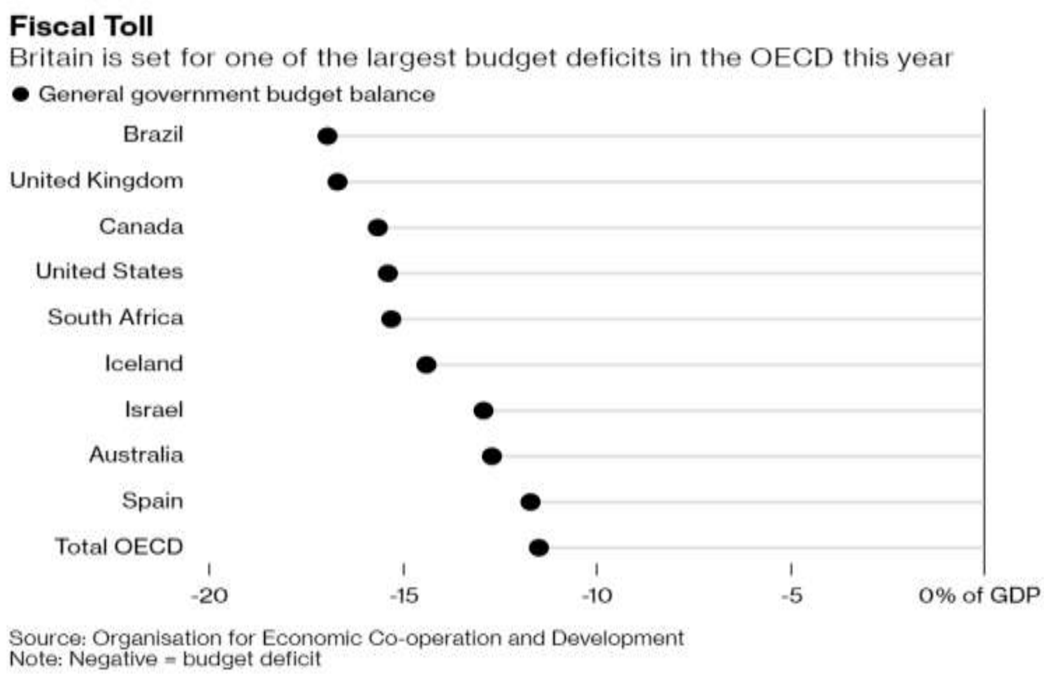


Gus Faucher, chief economist at PNC Financial in Pittsburgh, Pennsylvania pointed out that Growth will be very weak in early 2021, but should pick up in the spring as vaccine rollout continues, and stimulus funding supports consumer spending.

5. UK may have to resort to tax hike to tackle the ballooning debt crisis

The COVID-19 pandemic has taken a serious hit on the UK economy. With the infection cases still on the rise, speculation are rife on how the country will manage the ballooning debt crisis and tackle the pandemic.

With the nation still fresh from almost a decade of austerity, there's little appetite for spending cuts to shrink a deficit on course to reach 400 billion pounds (USD 547 billion) this year. As the Chancellor of Exchequer Rishi Sunak prepares to present the budget on 3 March with focus on restoring public finances, it is expected that the country is about to witness a sharp rise in taxes this year.



While most economists have advised against tax hikes, it is expected that the UK will try to swell its tax take, which would usually total almost 800 billion pounds. The speculations are only further strengthened by Sunak's insistence on streamlining the country's public finances.

6. Economic recovery in Germany stalled due to resurgence of the COVID-19 virus

In January, the German Government published a report that expects the country's economy to grow by only 3 per cent in 2021. The recent estimates are lower than the predictions made late last year due to longer virus shutdowns slow the pandemic recovery.

In October last year, the German Government was expecting the economy to grow at around 4.4 percent in 2021. However, a second coronavirus wave that took hold late last year and a sluggish start to vaccine rollouts across the European Union have doused hopes of a strong rebound in the early months of 2021.

German Economy Minister Peter Altmaier, presenting the annual economic report in Berlin, pointed out that it would take "until the second half" of 2022 for the German economy to return to pre-pandemic levels. He further pointed out the economic recovery has already started but at a much lower pace. A mixed picture is emerging: while industry continues to prove robust, the services sector is severely affected.

Germany's gross domestic product (GDP) shrank 5.0 percent last year, the biggest decline since the 2009 financial crisis, as the pandemic swept the globe and ravaged economic activity. However, the downturn was less severe than the other economies in the region. This was made possible by the Germany's resilient manufacturers and huge support packages from Chancellor Angela Merkel's traditionally frugal government.

Similar to most of the European countries, Germany has been hit hard by a resurgence in Covid-19 cases in recent months, prompting officials to re-impose restrictions on public life. Germany was forced to close restaurants hotels, culture and leisure centers in November. December further saw the closure of schools and non-essential shops. The Government has now extended the restrictions to mid of February. Unlike during the first shutdowns last spring, factories have been allowed to stay open, leaving Germany's key export sector largely intact. While the nation's coronavirus infection rate has started slowing down, the number of daily deaths remains high. There are also concerns that new, more contagious virus variants could lead to another surge in cases, and health experts have cautioned against lifting curbs too early.

Difficult days ahead

A recently published report by the DIW Think Tank estimates that German output could contract by as much as three percent over the first three months of 2021, after zero expansion in the fourth quarter last year. Claus Michelsen, Economist at DIW mentioned that the German economy has a long and rocky road to go before it can return to growth.

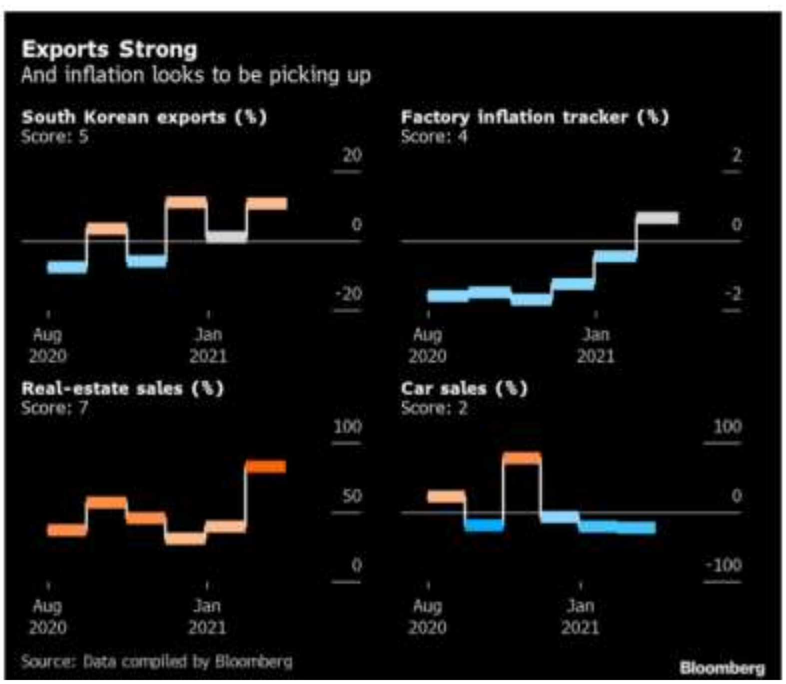
The German Economy Ministry has also pointed out in its report that the fast spread of the pandemic will take a heavy toll on the country’s economy during the first quarter of 2021. The economy "should pick up speed again" once more people have been vaccinated and restrictions are lifted, it added. Until then, Germany will be counting on its machine makers, car manufacturers and other industrial sectors to counteract the slump seen in close-contact businesses such as hospitality, travel and retail. In November 2020, both industrial orders and factory outputs rose by 2.3 per cent and 0.9 per cent respectively.

7. Economic indicators point towards a continued rise of economic activity in China

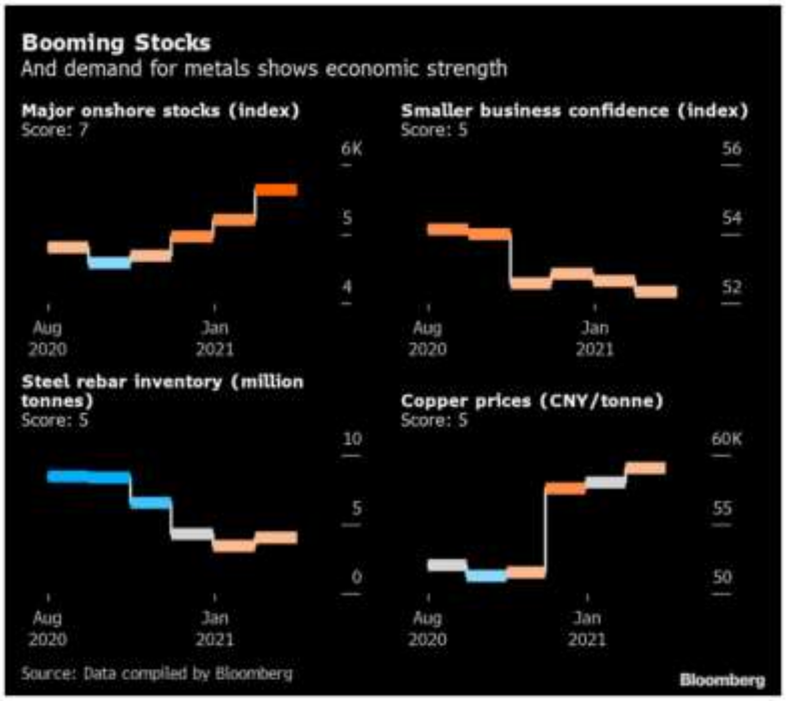
The Chinese economy has further stepped up this month putting itself way ahead of other competing countries. An aggregate index combining eight early indicators tracked by Bloomberg increased by one step from last month, led by strong performances in exports, property and the stock market.

The Chinese exports that have shown considerable improvements last year continued to further rise in January, besides a staggering 11 per cent rise in exports from South Korea. Shipments to China rose 19 per cent during that period, indicating strong demand ahead of the Lunar New Year holiday, which falls in February.

Confidence among China's smaller, export-oriented businesses eased in January, but they continued to outperform their domestic-focused peers according to Standard Chartered Plc. recent virus outbreaks in China and rising costs, pose serious risks to the country's economy. The research agency further underlined that re-imposition of restrictive measures in China after new cases of infection weighed on services activity again. It further mentioned that the rapid growth in commodity prices and signs that export demand may be plateauing are also headwinds



In January, the producer prices in the country rose above zero this month, the first time it's posted a positive reading since January 2020, before the pandemic hit. The metal prices in the country remained almost steady and industry experts are of the opinion that the prices may climb another 10 per cent during the first six months of 2021.

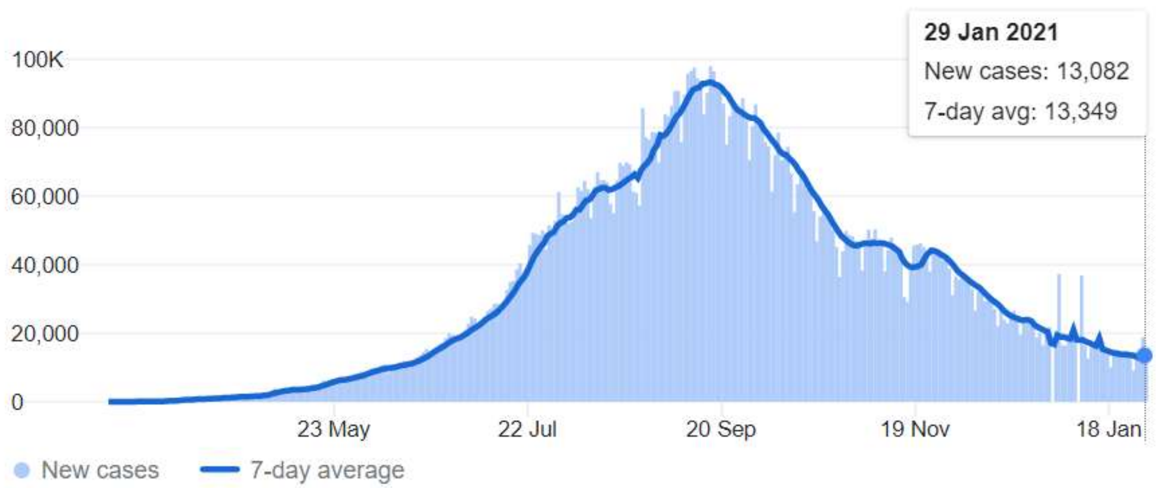


An end to recent declines in producer prices would help downstream companies and is a sign that the economy is getting back to normal. China's stock market continued to soar, with the benchmark index of 300 mainland companies almost back at the record high it hit in late 2007. While that is buoying the overall view of the economy this month, there are some signs that the market has peaked.

8. A snapshot of Indian Economy: COVID vaccine raises hopes for a swift recovery

Over the last two months, India has been among the very few countries in the world where the COVID-19 cases have witnessed a sharp decline. By the end of January, the number of COVID cases had already dropped to below 13,000 in the country. On 16 January, 2021, the Hon'ble Prime Minister of India has already roll out the vaccination programme in the country. At end of January 2021, the vaccination programme is already on full swing. The roll out of vaccine has also proved helpful for the economy and has built considerable confidence among businesses. At the end of January, India has already seen over 10.7 million cases of COVID-19 and has claimed over 1.54 lakh lives.

COVID-19 cases in India

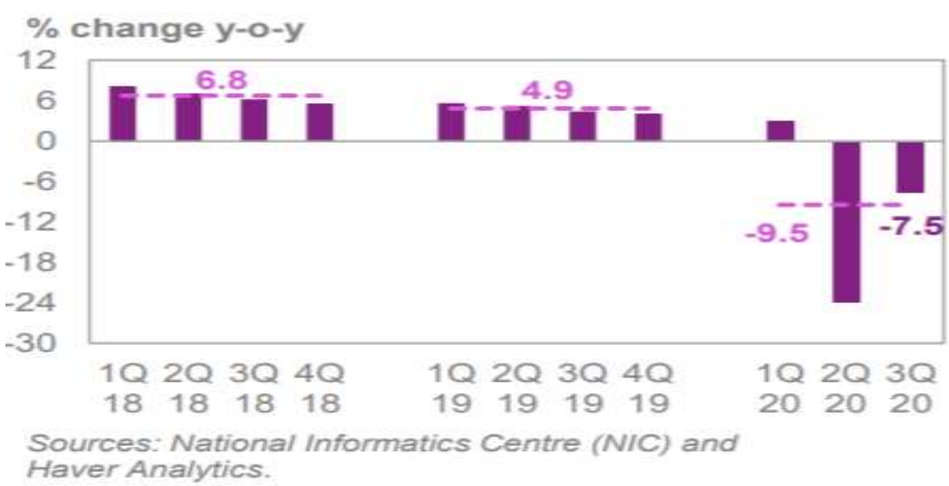


Source: World Health Organization (WHO)

Economy

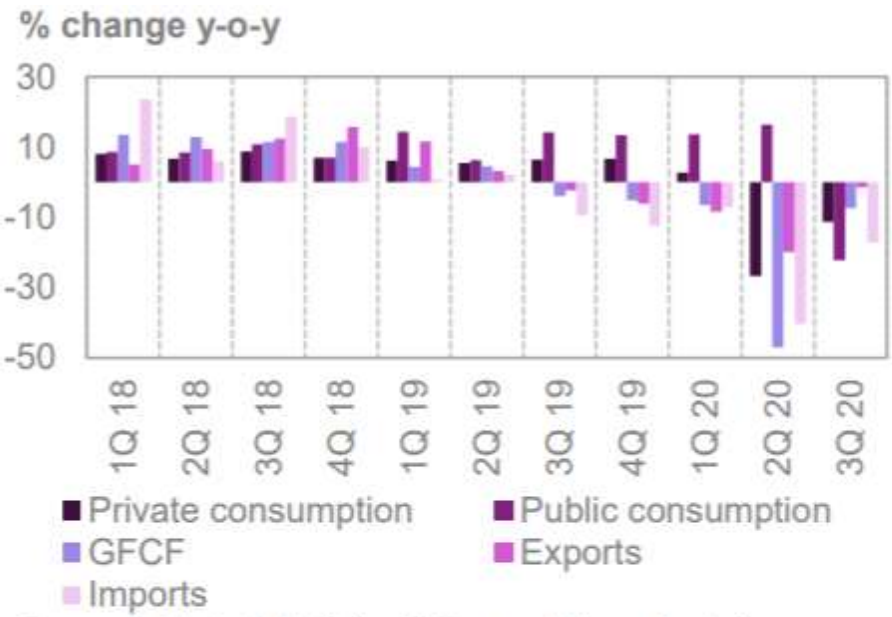
During the third quarter of 2020, Indian economy continued to recover but at a modest rate. At the end of the third quarter the country has recorded a contraction of 7.5 per cent. Vaccination programme has lifted the mood of the economy and the same is expected to be clearly visible at the end of the first quarter of 2020. The ongoing recovery is led by private consumption and investment.

India GDP quarterly growth



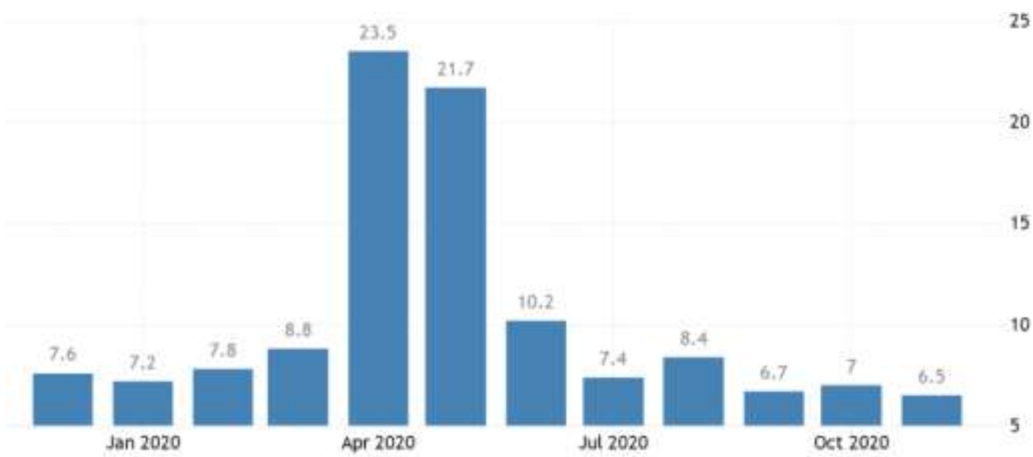
The third quarter of 2020 indicated that public spending growth was scaled back, but this may change in the last quarter of the year. The government launched two additional fiscal stimulus measures in October and November that brought government fiscal stimulus to 15 per cent of GDP. At the same time, the government is looking to narrow its budget deficit by improving revenue collections. On the monetary side, inflation remained above the central bank's 2-6 per cent target range, though India's consumer price index eased to 6.9 per cent y-o-y in November 2020, from of 7.6 percent the previous month. In order to support the soaring financial markets, the Reserve Bank of India considered draining liquidity in a move to gradually push short-term interest rates to converge with the reverse repo rate as part of emergency pandemic measures.

India's GDP growth by demand side



Sources: Central Statistics Office and Haver Analytics.

Despite the signs of recovery, the unemployment rate jumped sharply in December to 9.1 per cent from 6.5 per cent in November, the highest since the economy began to rebound in June. This was mainly driven by the high unemployment in rural India.



Source: Centre for Monitoring Indian Economy (CMIE)

Industrial production

India’s industrial production jumped 3.6 per cent y-o-y in October 2020, from the revised-up 0.5 per cent increase in September. Manufacturing activity increased by 3.5 per cent, the first increase in eight months.

Trade deficit

India’s trade deficit in December increased by 26 per cent compared to December 2019 as imports rose. The trade deficit expanded to USD 15.71 billion in December 2020 from USD 12.48 billion in December 2019, recording the biggest trade gap since November 2018.

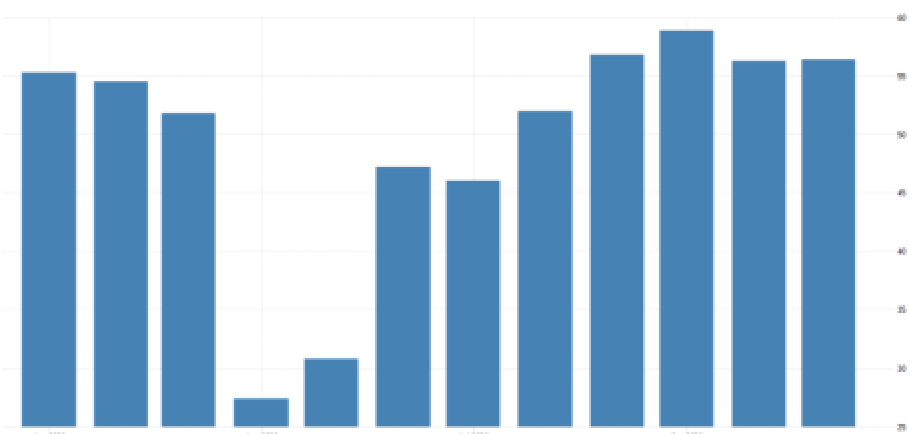
Exports

In November, exports dropped 0.8 per cent to USD 26.89 billion while imports increased by 7.6 per cent to USD 42.6 Billion. In the third quarter, current account was a surplus of USD 15.5 billion, or 2.4 per cent of gross domestic product.

PMI

The IHS Markit India Manufacturing PMI stood at 56.4 in December 2020, little-changed from the previous month's 56.3 and slightly below market consensus of 56.6. The latest reading was consistent with a marked improvement in business conditions across the sector, as the economy continued to recover amid the loosening of COVID-19 restrictions, strengthening demand and improved market conditions. Output and new orders grew solidly at the softest pace in four months, while employment declined for a ninth straight month.

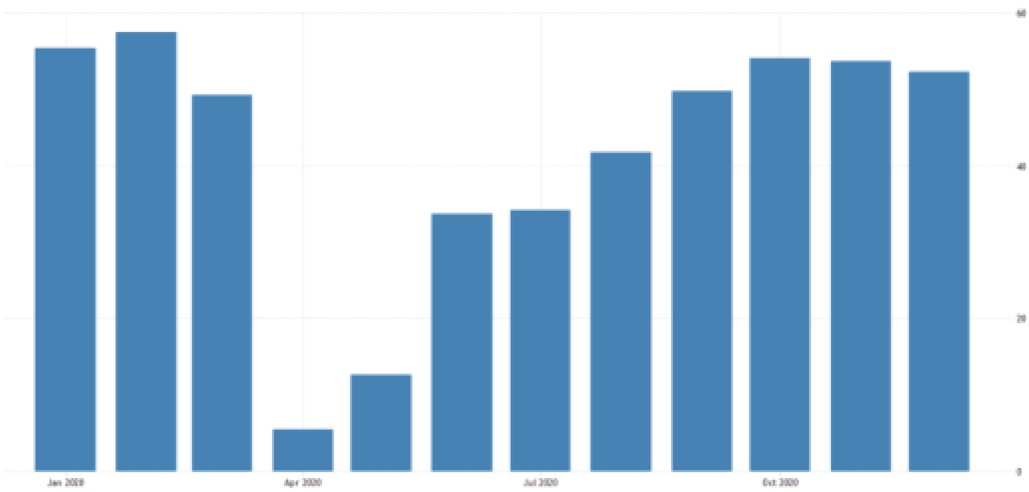
India Manufacturing PMI



Source: Centre for Monitoring Indian Economy (CMIE)

Services PMI declined to 52.3 in December 2020 from 53.7 in the previous month, and below market expectations of 54. The reading pointed to the third straight month of expansion in the services sector, but the weakest rate in the current sequence, as both output and new orders growth eased to three-month lows, due to the negative impact of COVID-19 on demand.

India Services PMI

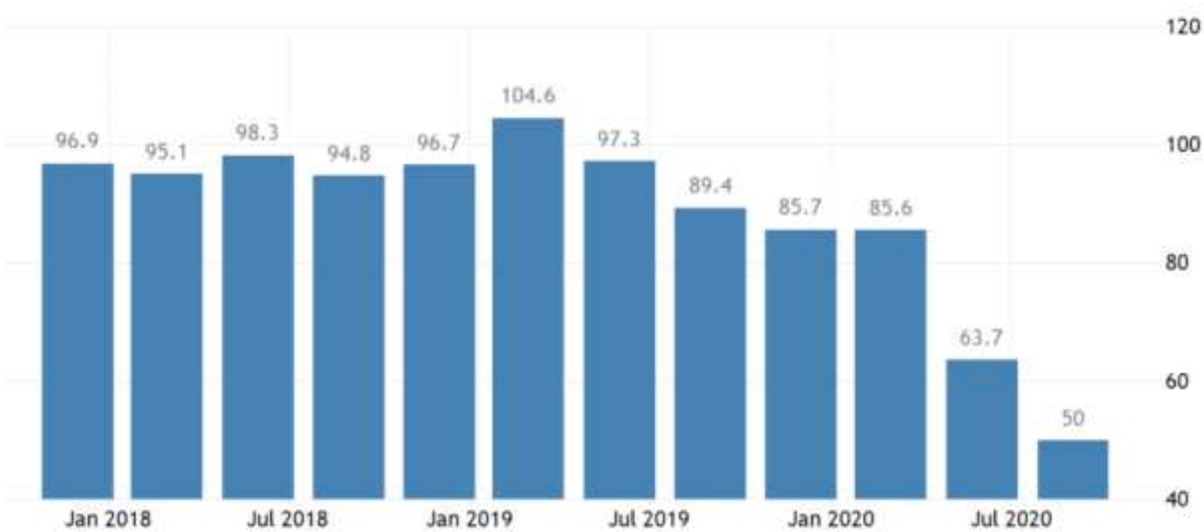


Source: Centre for Monitoring Indian Economy (CMIE)

Consumer confidence

Consumer Confidence in India decreased to 50 points in the third quarter of 2020 from 63.70 points in the second quarter of 2020.

India consumer confidence

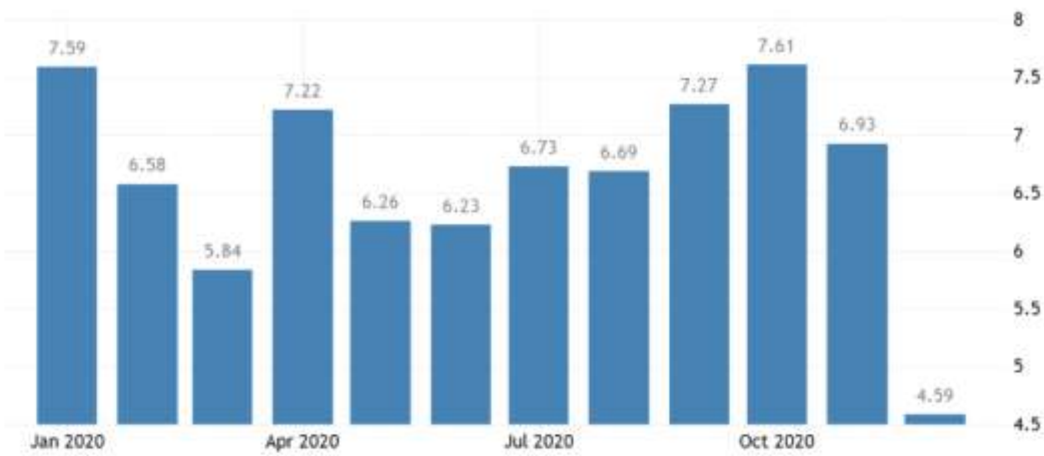


Source: Reserve Bank of India (RBI)

Inflation

India's retail price inflation dropped to 4.59 percent year-on-year in December 2020, the lowest in 15 months, from 6.93 percent in November and below market expectations of 5.28 percent. It is the first time since March that prices remain within the central bank's 2-6 percent target range mainly due to a slowdown in the cost of food.

India Inflation



Source: Centre for Monitoring Indian Economy (CMIE)

9. Economic survey 2021 raises hopes for a much coveted double digit growth in the next fiscal year

On 29 January, 2021, the Hon'ble Finance Minister of India Smt Nirmala Sitharaman presented the Economic Survey that details the state of the economy ahead of the government's Budget for fiscal year beginning April 1, 2021. The much awaited report has been authored by a team led by Chief Economic Adviser Krishnamurthy Venkata Subramanian and presents the summary of the state of the Indian economy across various dimensions. Some of the major takeaways of the report are mentioned as under:

- The survey expects the Indian economy to grow at a rate of 11 per cent in real terms during the year 2021-22. This forecast is very close to the estimated growth of 11.5 per cent by the IMF for the Indian economy during this period. Nevertheless, one factor that needs to be kept in mind; the size of the Indian economy, as measured by the Gross Domestic Product (GDP), is expected to contract by 7.7 per cent during 2020-21 to INR 134.4 lakh crore. Hence, the 11 per cent growth expected in 2021-22 is on this low base.

- The gross tax revenue earned by the Indian Government during the period fell by 12.6 per cent between April to November 2020. The fall in the tax revenue is chiefly due to the fact that other than excise duty, the taxes earned by the government have taken a severe beating, due to the economy contracting. The excise duty collections have gone up because the government has increased the excise duty collected per liter of petrol and diesel, during the course of the year. The gross tax revenue earned during the year is expected to fall well short of the budgeted INR 24.2 lakh crore.

- Government earnings from disinvestment route has taken a severe hit during this financial year. Of the targeted INR 2.1 lakh crore, by 20 January, 2021, the government was able to earn only INR 15,220 crore through this route, or around 7.2 per cent of the targeted amount. A major share of this earning came from selling shares in Hindustan Aeronautics Limited and Indian Railway Catering and Tourism Corporation Ltd.

- The fiscal deficit for the year has gone up as the pandemic has reduced the earning capabilities. Fiscal deficit is the difference between what a government earns and what it spends during the course of the year. The Government has funded this difference through borrowings by issuing bonds.

- Economic Survey raises a concern about the disconnect between the level at which the stock prices are and the real economy. As the Survey points out: “While stock markets value the potential future growth, these elevated levels still raise concerns on the disconnect between the financial markets and real sector." Between April and December 2020, the foreign institutional investors have net invested a massive $30 billion in buying Indian stocks, which was five times the amount invested in 2019.

- The survey highlights that the Indian economy is set to chart a strong recovery during the second half of 2021. This is primarily happening because in an environment where both corporate and individual spending has taken a backseat, the government has come in as the spender of the last resort. During the second half of 2021, Government consumption is expected to grow at 17 per cent.

- During the upcoming financial year, the only sector that is expected to post a growth as per the report is the agricultural sector. During the year, the sector is expected to grow at 3.4 per cent. In 2019-20, contribution of the agricultural sector in the economy stood at 14.7 per cent. In 2020-21, this is expected to grow to 16.3 per cent, due to the contraction of other major sectors.

- Some sort of recovery during the second half is also visible in the increased collections of Goods and Services Tax (GST). The monthly GST collections in December 2020 stood at INR 1.15 lakh crore or 12 per cent more than in December 2019. The Survey attributes this increase to “the combined effect of the rapid economic recovery post pandemic and the nation-wide drive against GST evaders and fake bills along with many systemic changes introduced recently, which have led to improved compliance."

- The impact of COVID pandemic was also clearly visible on bank credit growth or the increase in loans given by banks in comparison to the previous year. As of 1 January, bank credit growth stood at 6.7 per cent. Since September 2019, bank credit growth has been in single digits. Indeed, this is a reason to worry. In fact, one of the reasons for this is the fact that banks continue to remain undercapitalized.

10. Union Budget 2021-22: Key takeaways for the Indian oil & gas industry

On 1 February, 2021, the Hon'ble Finance Minister Smt Nirmala Sitharaman presented the Union budget for the year 2021-22. At the very outset of her budget speech Smt Sitharaman clarified that the Union budget for 2021-22, rests on six pillars: Health and wellbeing; Physical and Financial Infrastructure; Inclusive Development for Aspirational India; Reinvigorating human capital; Innovation and R&D; and Minimum Government, Maximum Governance.

Most experts believe that the Union budget will script the economic recovery of Post-COVID India and lay the foundation for the country's growth in the new decade. Some of the major takeaways of the budget for the oil and gas sector are as under:

- **Clean Air:** To tackle the burgeoning problem of air pollution, Union budget proposes for an amount of INR 2,217 crores for 42 urban centres with a million-plus population in this budget.

- **Vehicle Scrapping Policy:** Introduction of a Voluntary vehicle scrapping policy, to phase out old and unfit vehicles. This will help in encouraging fuel efficient, environment friendly vehicles, thereby reducing vehicular pollution and oil import bill.

- **Pipeline Monetization:** Oil and Gas Pipelines of GAIL, IndianOil and HPCL will be rolled out under the Asset Monetization Programme

- **Extension of Ujjwala Beneficiaries:** Ujjwala Scheme which has benefited 8 crores households will be extended to cover 1 crores more beneficiaries.

- **Expansion of gas infrastructure:** 100 more districts in next 3 years to the City Gas Distribution network. A gas pipeline project will be taken up in Union Territory of Jammu & Kashmir.

- **Seeing up of independent TSO:** An independent Gas Transport System Operator will be set up for facilitation and coordination of booking of common carrier capacity in all-natural gas pipelines on a non-discriminatory open access basis.

- **National Hydrogen Energy Mission:** Prime Minister, while speaking at the 3rd Re-inVest Conference in November 2020, had announced plans to launch a comprehensive National Hydrogen Energy Mission. Union Budget 2021-22 proposes to launch a Hydrogen Energy Mission in 2021-22 for generating hydrogen from green power sources.

- **Relief for naphtha:** Bringing a huge relief to the evolving petrochemicals industry in India, Government has reduced the customs duty on naphtha from 4 per cent to 2.5 per cent

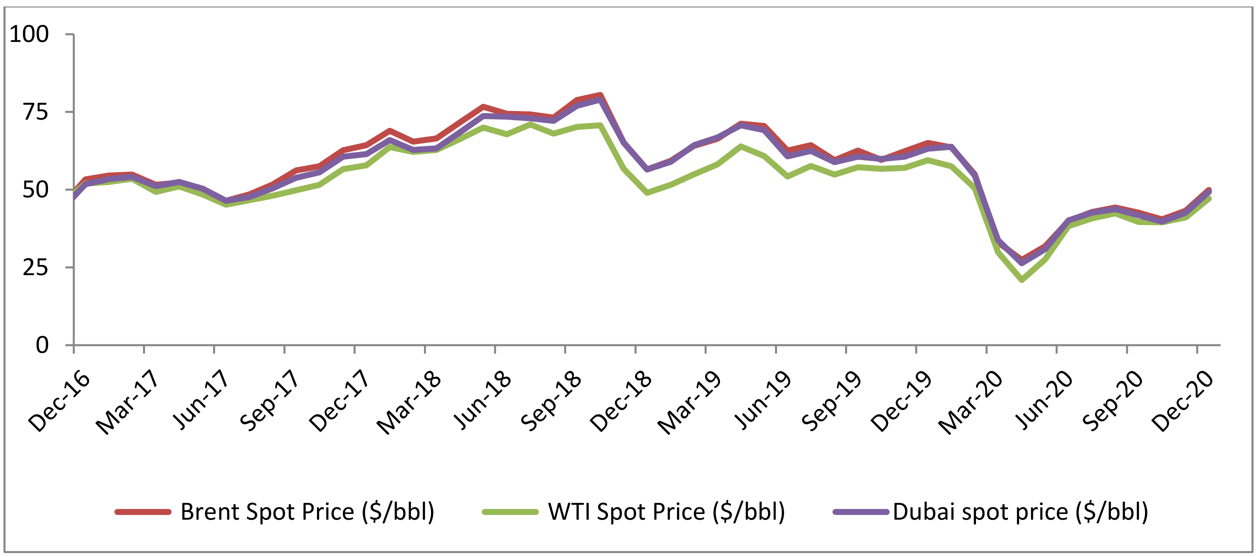
Oil Market

Crude oil price – Monthly Review

Global crude benchmarks saw a significant rise in the month of December as the hopes of Covid-19 vaccine led to the optimism of crude demand recovery. This was further bolstered by the demand recovery in major crude consumer like China and India, where the economic activities are in the path of recovery to reach pre-covid-19 levels. In the second week of December, Brent touched USD 50/barrel mark, highest since March 2020. In the third week of December, crude benchmarks fell on the account of new strain of COVID-19 spread in UK.

For the month, crude benchmarks went up with significant percentage rise. Average Brent, WTI and Dubai basket crude prices in December went up by 15.6%, 14.6 % and 15.7 % respectively from their November prices.

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



Source: WORLD BANK

- Brent crude price averaged $ 49.93 per bbl in December 2020, up by 15.6 % on a month on month (MoM) but down by 23.2 % on year on year (YoY) basis, respectively.
- WTI crude price averaged $ 47.10 per bbl in December 2020, up by 14.6 % on a month on month (MoM) but down by 20.8 % on year on year (YoY) basis, respectively.
- Dubai crude price averaged $ 49.30 per bbl in December 2020, up by 15.7 % on a month on month (MoM) but down by 22.0 % on year on year (YoY) basis, respectively.

Table 1: Crude oil price in December, 2020

Crude oil	Price ($/bbl) in December 2020	MoM (%) change	YoY (%) change
Brent	49.93	15.6%	-23.2%
WTI	47.10	14.6%	-20.8%
Dubai	49.30	15.7%	-22.0%

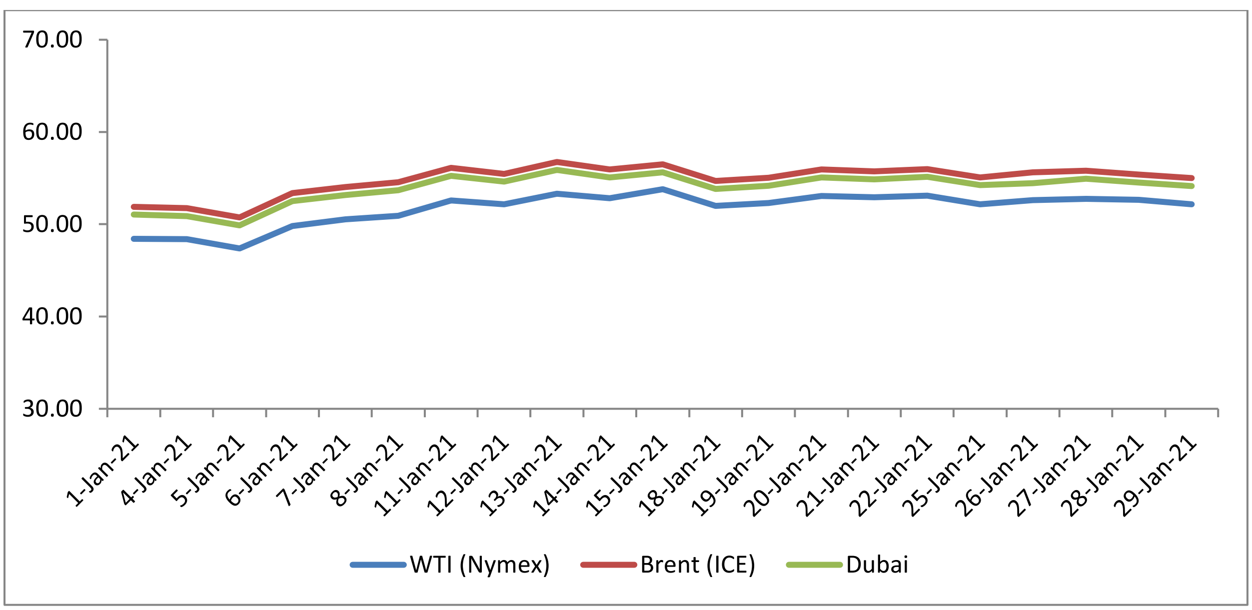
Source: WORLD BANK

Rollout of Covi-19 vaccines signals recovery of demand in 2021

Global crude benchmarks continued to raise in the month of January 2021 followed by the strong increase in December 2020. With OPEC and the allies agreeing to rollback production of crude oil, the prices rose on the controlled supply. Earlier the OPEC nations planned to increase production. However, new strain of Covid-19 virus in Europe and the corresponding lockdown made OPEC nations to roll back the planned production increase to avoid oversupply of crude in the market. Rollout of vaccines in major consumers like USA, India raised the hopes of stronger demand recovery for 2021.

For the month, crude benchmarks went up with significant percentage rise. Average Brent, WTI and Dubai basket crude prices in January went up by 9.81 %, 9.79 % and 9.43 % respectively from their December prices.

Figure 2: Crude oil price in January 2021

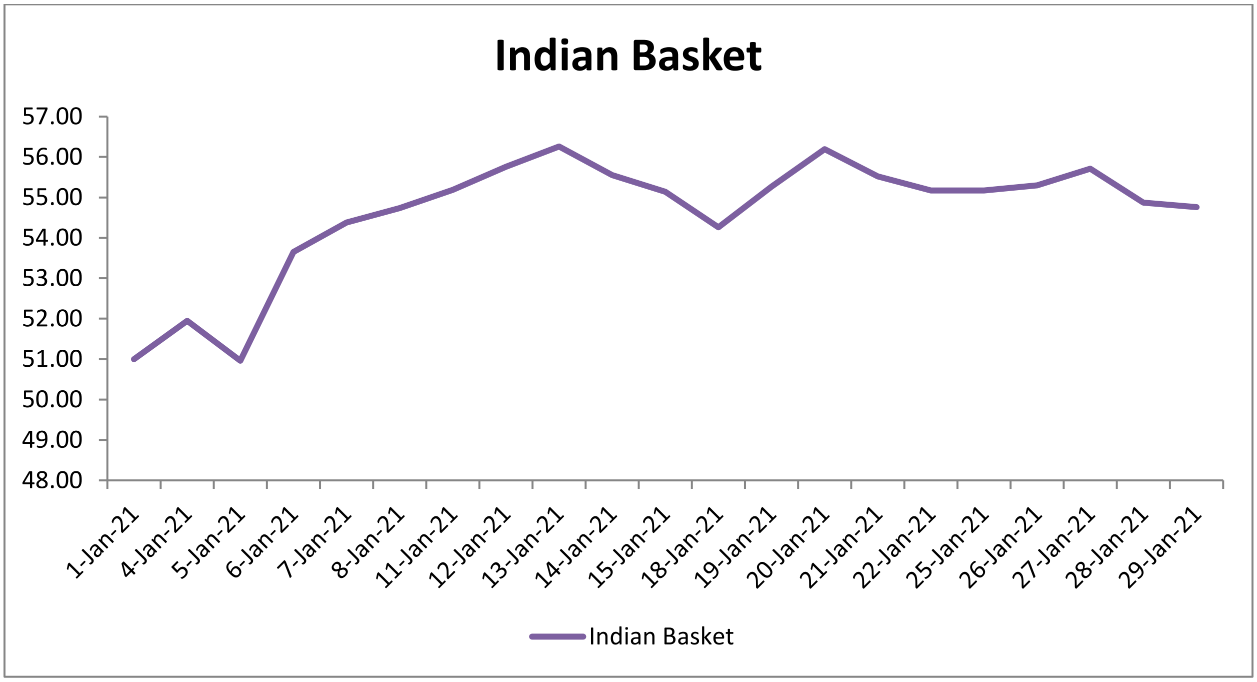


Source: EIA, Oilprice.com, PPAC

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 increased as the reference crude benchmarks for the month of December went up in the global market.

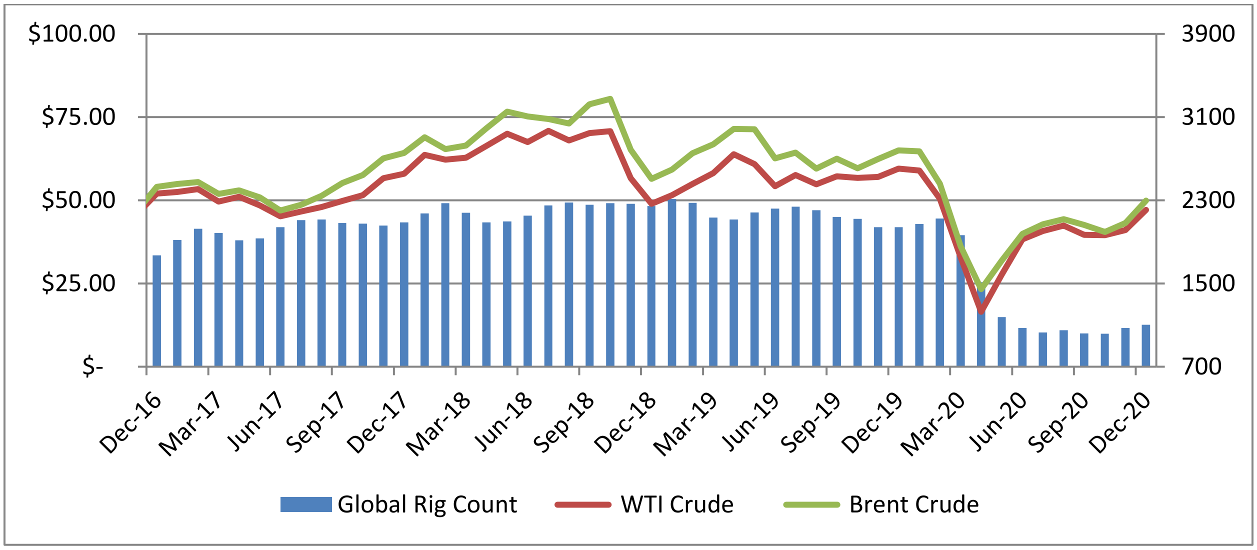
- Indian crude basket price averaged $54.60 per barrel in January 2020, up by 9.77 % on Month on Month (M-o-M) but down by 15.10 % on a year on year (Y-o-Y) basis, respectively.

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

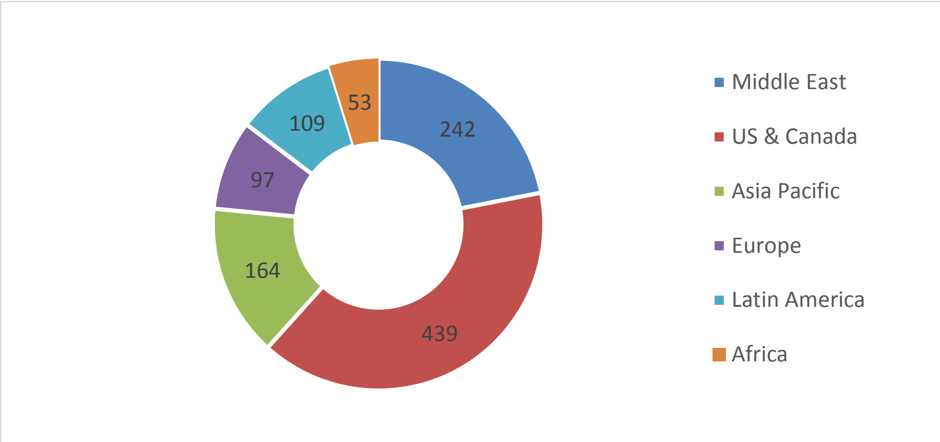
Global rig count for the month of December went up by 30. From November's rig count of 1,074, it went up to 1,104. Recovery in crude oil prices increased the confidence of E&P players to resume the E&P activities. Rig count went up in Latin America, Middle East and in North America. Rig counts declined in Europe and Africa. US rig count was up by 29 from 310 to reach 339, while rig count in Canada went up by 5 from 95 to reach 100. Onshore rig went up by 33 and offshore rigs went down by 3.

Table 2 : Global Drilling Rig Count

Rig Type	Count in December 2020	MoM (%) change	YoY (%) change
Land	934	3.66 %	-46.96 %
Offshore	170	- 1.73 %	-39.72 %
Total	1,104	2.79 %	-45.96 %

Source: Baker Hughes

Figure 5 Geography-wise Rig count - December 2020



Source: Baker Hughes

Indian Drilling Rig Count

Indian drilling rig count went up by 3 in the month of December to reach 81. Indian rig count decreased by 25.69 % on Y-O-Y basis. 65 were onshore rigs and the rest 16 were offshore rigs.

Figure 6 Indian Rig Count vs. Indian Basket Crude Price

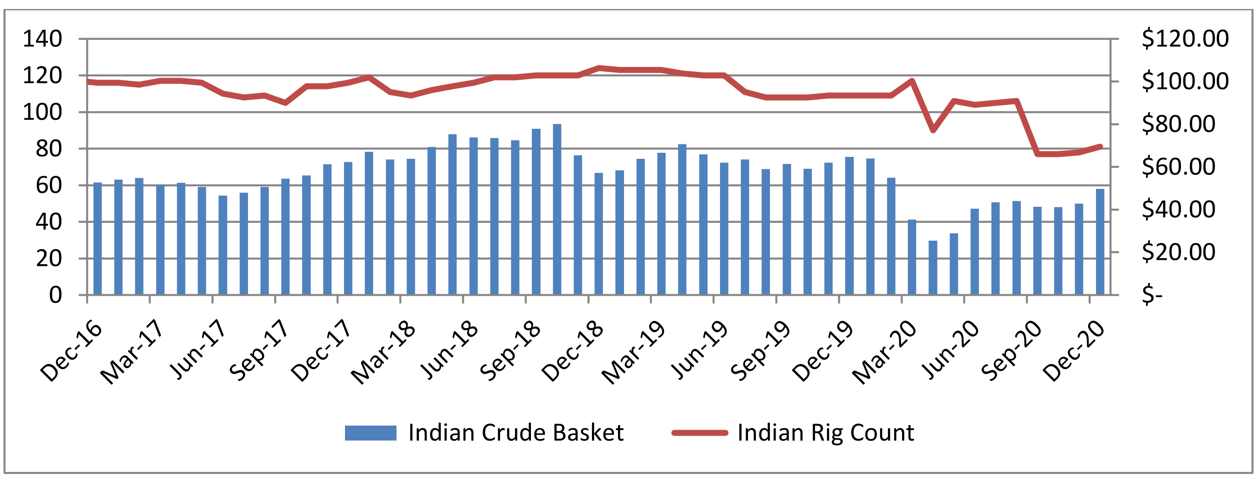


Table 3 : Indian Rig Count

Rig Type	Count in December 2020	MoM (%) change	YoY (%) change
Land	65	0.00 %	-15.58 %
Offshore	16	23.08 %	-50.00 %
Total	81	3.85 %	-25. 69 %

Source: Baker Hughes

Oil demand & supply

Monthly Review:

Preliminary data indicates that global oil supply in December rose by 0.58 mb/d m-o-m to average 92.93 mb/d and down by 8.23 mb/d Y-o-Y. Non-OPEC supply (including OPEC NGLs) increased in December by 0.30 mb/d m-o-m to average 67.57 mb/d in December 2020. On Y-o-Y basis, it was lower by 4.69 mb/d. The preliminary increase in production was driven by OECD countries. In December, share of OPEC crude oil in total global production went up by 0.1% to 27.3%.

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 contract by 9.8 mb/d. Total global oil demand is estimated to average around 90.00 mb/d. Oil demand in the OECD region in 2020 was revised lower due to weaker-than expected data in OECD Americas particularly in 2H20. Recovery in transportation fuels was impacted due to an increase in Covid-19 cases, thereby reducing the mobility.

In the non-OECD region, oil demand in 2020 was revised higher, mainly due to higher-than-expected demand in India and China in 4Q20. Stronger petrochemical feedstock demand and healthy demand in gasoline requirements supported the upward revision in both the countries. This was counterbalance by the lower-than-expected demand from the other countries in Asia.

Total global oil demand is estimated to be 90.01 mb/d in 2020. Oil demand forecast for Q4 2020 was revised down up 0.9 mb/d to reach 93.56 mb/d.

For 2021, world oil demand growth is revised up by 0.2 mb/d , to a growth of 5.90 mb/d. There is an uncertainty caused by the impact of Covid-19 which has reduced the demand forecast for 2021. With improvement in economic activities, demand for petrochemical feedstock and industrial fuels are forecasted to gain momentum in 2021. Overall demand for 2021 is forecasted to be 95.91 mb/d.

Table 4: World Oil demand in mbpd	2019	1Q2020	2Q2020	3Q2020	4Q2020	2020	Growth	%
Total OECD	**47.89**	**45.43**	**37.54**	**42.28**	**43.35**	**42.16**	**-5.54**	**-11.61**
~ of which US	**20.86**	**19.66**	**16.38**	**18.67**	**19.78**	**18.62**	**-2.24**	**-10.73**
Total Non-OECD	**52.07**	**47.48**	**45.02**	**48.67**	**50.21**	**47.86**	**-4.21**	**-8.09**
~ of which India	*4.84*	*4.77*	*3.51*	*3.94*	*4.54*	*4.19*	*-0.65*	*-13.48*
~ of which China	13.33	10.84	12.85	13.67	14.18	12.89	-0.44	-3.31
Total world	**99.76**	**92.92**	**82.55**	**90.95**	**93.56**	**90.01**	**-9.75**	**-9.78**

Source: OPEC monthly report, December 2020

*Note: *2019 = Estimate and 2020 Forecast*

Global petroleum product prices

Monthly Review:

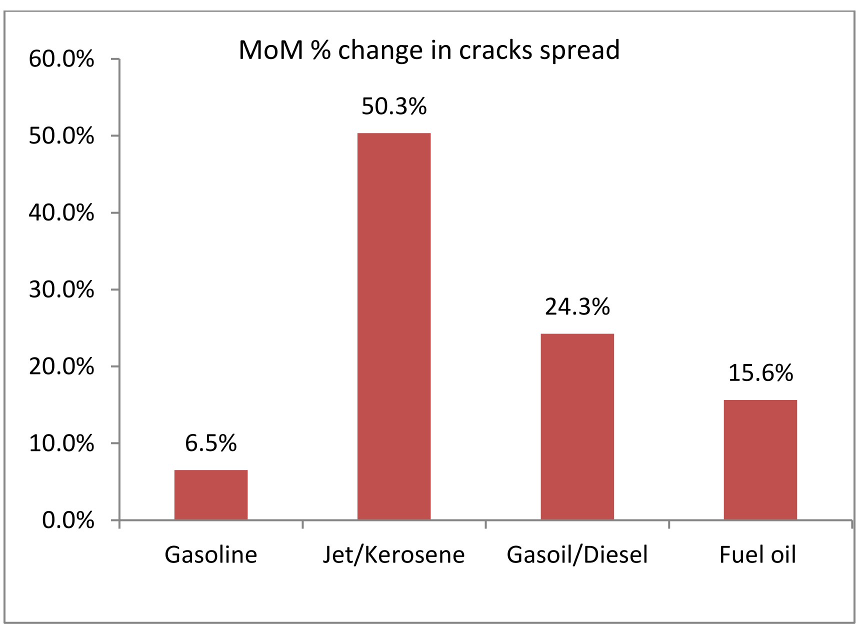
Asian product markets weakened, pressured by stronger crude prices that rose significantly in December. A downturn in fuel oil markets as high sulphur fuel oil consumers switched to LNG as an alternative feedstock. Refinery margins for Oman in Asia lost 19¢ on m-o-m to average 84 ¢/b in December and were higher by $ 2.06 on y-o-y basis. Refinery utilization rates in December averaged 89.83 % in selected Asian markets comprising of Japan, China, India and Singapore.

Asian gasoline 92 cracks spread gained some ground in December due to positive sentiment based on expectation of a pick-up in exports in the region ahead of the holiday season. Singapore Gasoline cracks averaged minus $2.62/b against Oman in December, up by 44 ¢ m-o-m but down by $3.86 y-o-y.

Jet/kerosene cracks spread in Asia climbed to their highest levels since March 2020 supported by a uptick in aviation demand and expectation for firmer winter heat demand for kerosene. The Singapore jet/kerosene crack spread against Oman averaged $4.09/b, up by $1.78 m-o-m, but down by $9.30 y-o-y.

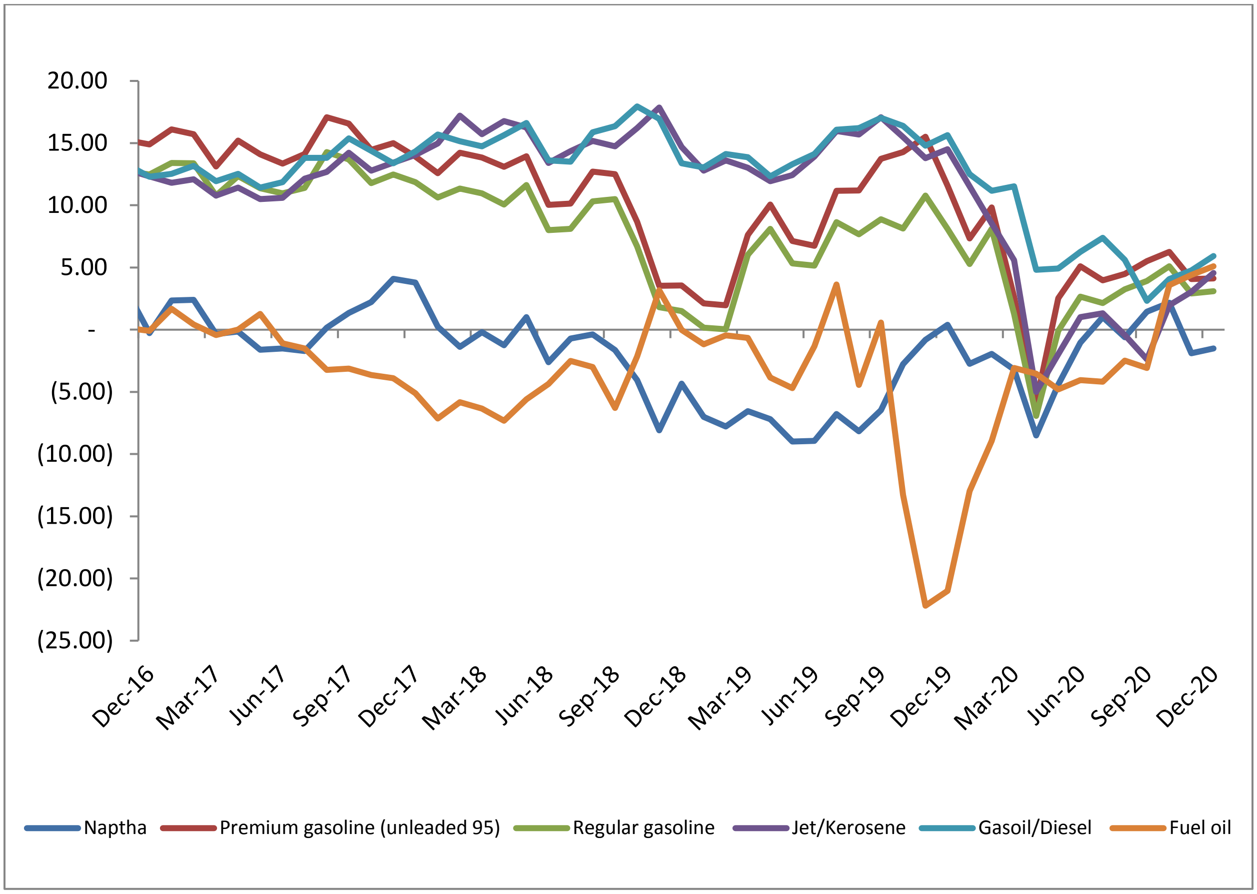
The Singapore gasoil crack spread strengthened as it rose for the fourth consecutive month in December supported by continuous expansion of manufacturing activities in China and India. Singapore gasoil crack spread against Oman averaged $4.72 /b, up by 90 ¢ /b m-o-m but down by $9.30 y-o-y.

The Singapore fuel oil crack spread stood as the sole negative performer across the barrel. It suffered losses pressured by stronger LNG competition as an alternative feedstock for the utilities sector Lower HSFO consumption in China kept the prices under pressure. Singapore fuel oil cracks against Oman averaged minus $ 3.70 /b, down by $ 3.09 m-o-m and but up by $ 19.96 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 December 2020	MoM (%) change	YoY (%) change
Naptha	47.8	17.4%	-24.9%
Premium gasoline (unleaded 95)	53.43	14.5%	-28.6%
Regular gasoline (unleaded 92)	52.4	15.1%	-26.5%
Jet/Kerosene	53.87	18.0%	-30.7%
Gasoil/Diesel (50 ppm)	55.21	16.6%	-30.0%
Fuel oil (180 cst 2.0% S)	54.4	15.7%	28.8%
Fuel oil (380 cst 3.5% S)	46.08	7.9%	11.8%

Source: OPEC

Petroleum products consumption in India

Monthly Review:

- In December 2020, demand for petroleum products went up by 4.3% and reached the highest since February 2020.
- On yearly basis, petroleum product consumption was down by 1.4%.
- Transport fuels namely Petrol and Diesel saw a small growth in demand by 1.5 % and 2.0 % respectively on monthly basis. On year-o-year basis, Diesel consumption was down by 2.8%.
- ATF consumption went by 15 % as government permitted the airlines to increase the number of flights in operation.
- ATF consumption on Y-o-Y basis was down by 41.3%. Once airlines start scaling up the operations to the pre-covid level, the demand will further strengthen in the upcoming months.
- LPG consumption went up by 7.5 % as the demand recovered strongly after a weaker November month.
- Record construction in road projects improved the demand for Bitumen and its consumption went up by 9.9 % on comparison with the previous month.
- Increase in industrial activity helped in improvement of Lubricant & greases, Petroleum coke. Lubricant & greases consumption went up by 5.6% on monthly basis and 16.9 % on yearly basis.

Table 6: Petroleum products consumption in India, December 2020

Petroleum products	Consumption in '000 MT December 2020	MoM (%) change	YoY (%) change
LPG	2,529	7.5%	7.4%
Naphtha	1,238	-7.9%	-3.0%
MS	2,704	1.5%	9.3%
ATF	428	15.0%	-41.3%
HSD	7,183	2.0%	-2.8%
LDO	86	27.9%	87.4%
Lubricants & Greases	333	5.6%	16.9%
FO & LSHS	559	11.5%	-10.7%
Bitumen	761	9.9%	21.0%
Petroleum coke	1,595	13.8%	-20.4%
Others	1,046	13.2%	15.5%
TOTAL	18,597	4.3%	-1.4%

Source: PPAC

Natural Gas Market

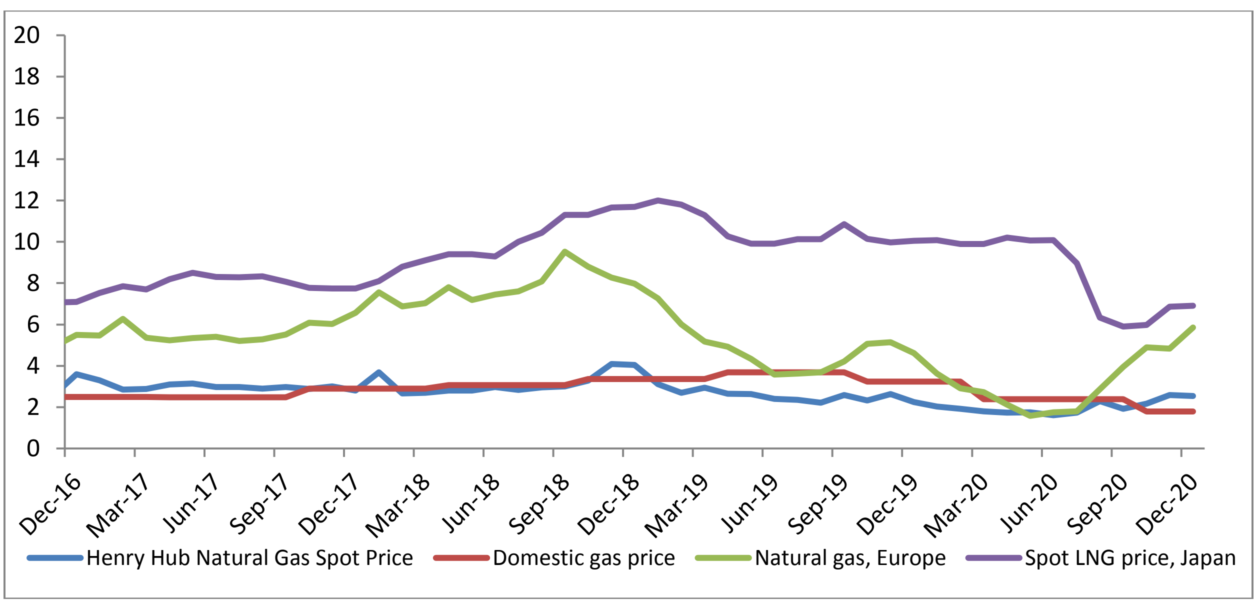
Natural Gas Price – Monthly Review

Natural gas prices went up in the month of December in European hub & Japan, while Henry hub saw minor decline in the price. Natural gas price in the Henry hub went down by 1.9 % to reach $2.54/MMBtu in the month of December. After two months of straight increase, gas price went down despite the stronger demand due to the prevailing winter. There was a marginal decrease in LNG exports. With winter expected to intensify in the coming months, Natural gas may surpass USD 3 /MMBtu mark by earlier 2021.

Natural gas prices in Europe went up significantly in the month of December. Increasing price trend which was halted in November, came back with an increase of 21.1% in the month of December. In December gas price stood at USD 5.86/MMBtu, a new high in last one year. Intense winter and snowfall led to the increase in gas demand for home heating in the region. Constrained gas supplier have further strengthened the market in the region.

Asian spot LNG prices rallied up further higher in the month of December and stood at multi-year high on the account of stronger winter demand. Delivery price for February 2021, stood around $21 /MMBtu. Increasing demand has impacted the availability of ships which further increased the shipping cost for LNG. Japan LNG benchmark went up by 0.7% in the month of December.

Figure 8: Global natural gas price trends



Source: EIA, WORLD BANK

Table 7: Gas price

Natural Gas	Price ($/MMBTU) in December 2020	MoM (%) change	YoY (%) change
India, Domestic gas price (Apr 20)	1.79	-25.1%	-44.6%
India, Gas price ceiling – difficult areas (Apr 20)	4.06	-27.62%	-51.8%
Henry Hub	2.54	-1.9%	13.4%
Natural Gas, Europe	5.86	21.1%	26.8%
Liquefied Natural Gas, Japan	6.91	0.7%	-31.2%

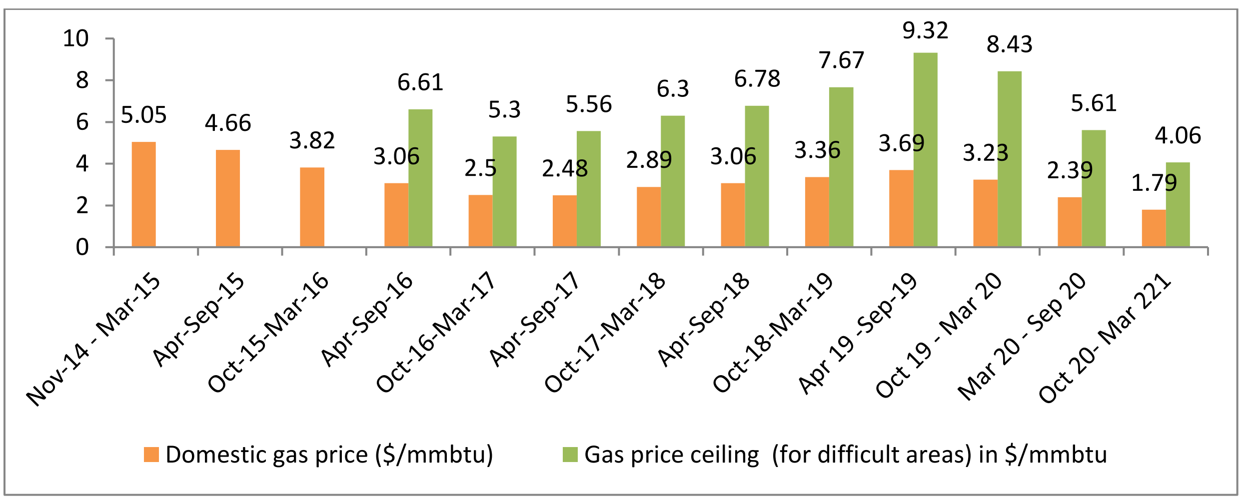
Source: EIA, PPAC, World Bank

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 October 2020 to March 2021 is $1.79 per MMBTU and it is down by 25.10 % as compared to last revision and down by 44.58 % 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 October 2020 to March 2021 period, the price of gas from such areas has been notified at $4.06 per MMBTU, 27.62 % down from last revision and 51.8% down from last year.

Figure 9: Domestic natural gas price



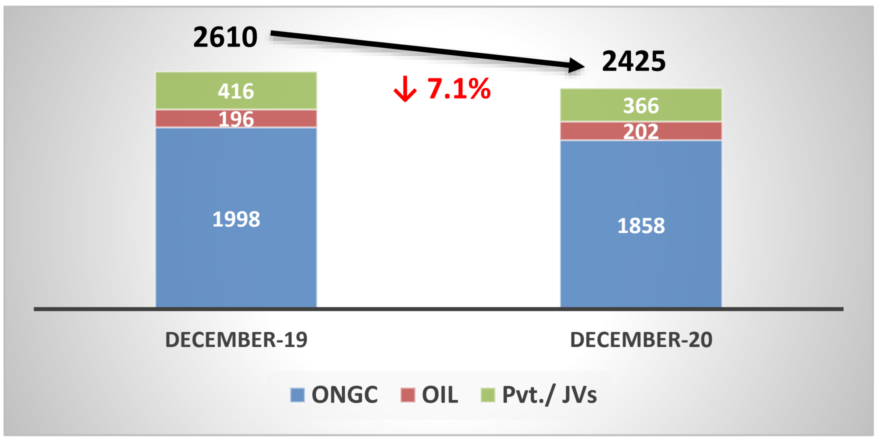
Source: PPAC

Monthly Report on Natural gas production, imports and consumption – December 2020

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of December 2020 was 2425 MMSCM (decrease of 7.1% over the corresponding month of the previous year 2610 MMSCM)

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

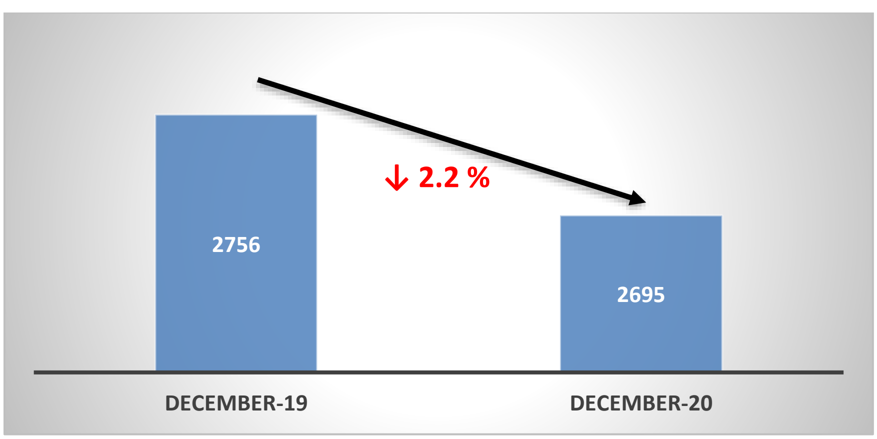


Source: PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of December 2020 were 2695 MMSCM (decrease of 2.2% over the corresponding month of the previous year 2756 MMSCM).

Figure 11: LNG imports (Qty in MMSCM)

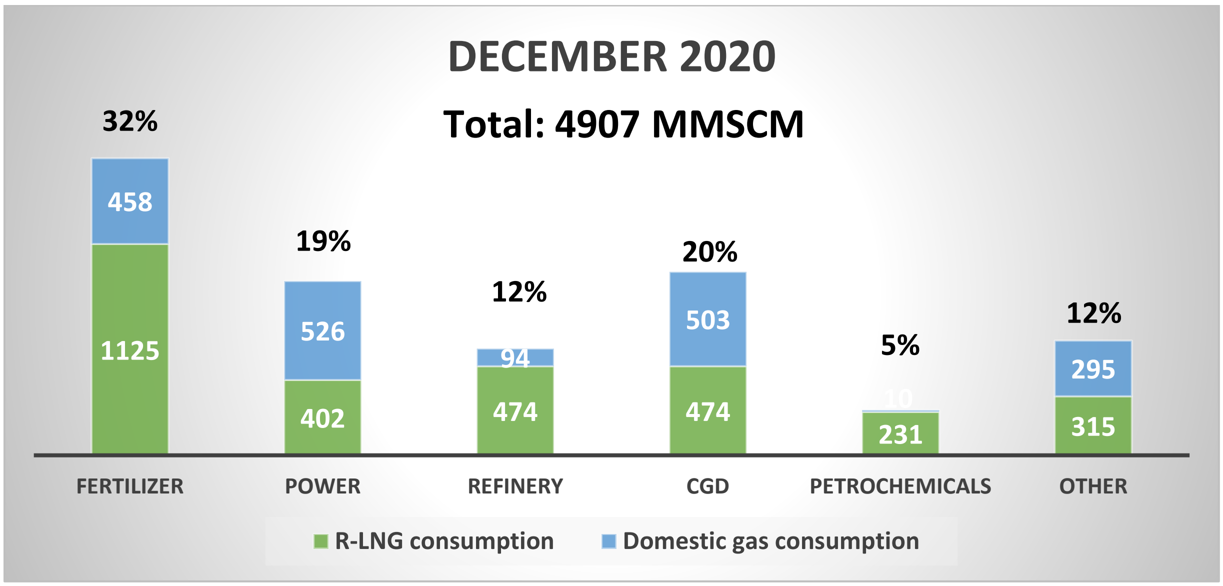


Source: PPAC

3. Sectoral Consumption of Natural Gas:

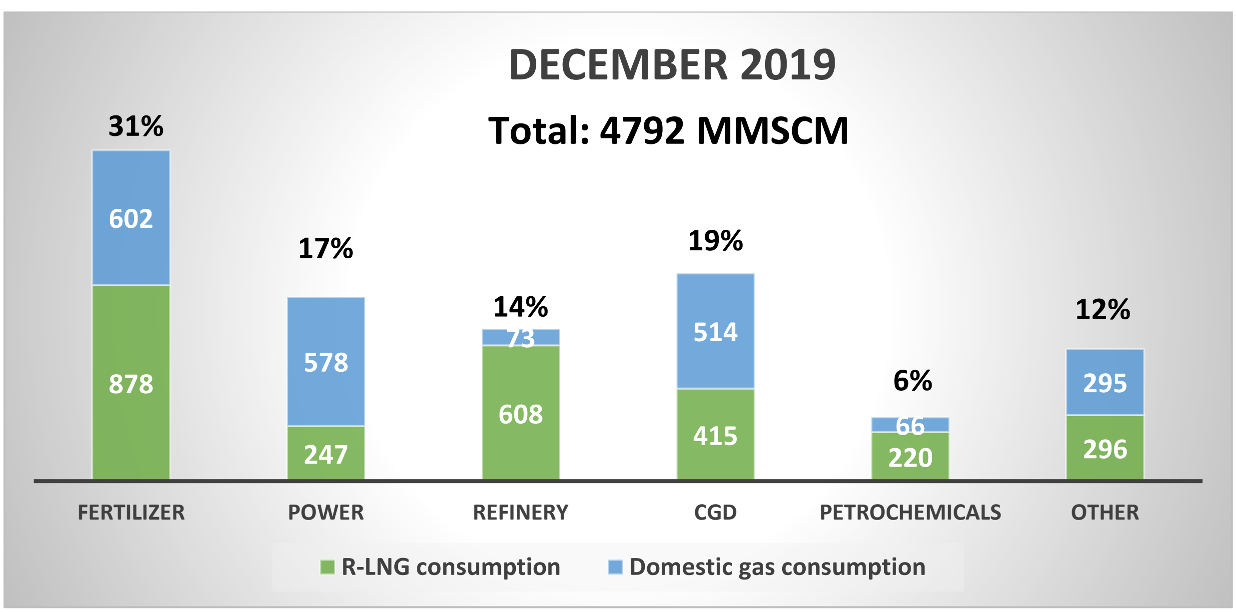
Total consumption of natural gas during December 2020 was 4907 MMSCM (increase of 2.2% over the corresponding month of the previous year 4792 MMSCM). Major consumers were Fertilizer (32%), City Gas Distribution (CGD) (20%), Power (19%), Refinery (12%), and Petrochemicals (5%).

Figure 12: Sectoral Consumption of Natural Gas (Qty in MMSCM) in December 2020



Source: PPAC

Figure 13: Sectoral Consumption of Natural Gas (Qty in MMSCM) in December 2019



Source: PPAC

Key developments in Oil & Gas sector during January 2021

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

Crude oil production during December,2020 was 2555.66 TMT which is6.85% lower than target and3.59% lower when compared with December, 2019.Cumulative crude oil production during April-December, 2020 was 22982.16 TMT which is 5.27% and 5.72% lower than target for the period and production during corresponding period of last year respectively.

Natural gas production during December,2020 was 2424.90MMSCM which is 22.94% lower than the monthly target and 7.11% lower when compared with December, 2019. Cumulative natural gas production during April-December, 2020 was 21128.92MMSCM which is 13.38% and 11.30% lower than target for the period and production during corresponding period of last year respectively.

Crude Oil Processed during December, 2020 was 21024.40 TMT which is 4.02% lower than the target for the month but 0.93% higher when compared with December, 2019. Cumulative crude throughput during April-December, 2020 was160361.50 TMT which is 14.46% and 15.77% lower than target for the period and crude throughput during corresponding period of last year respectively.

- **Shri Dharmendra Pradhan inaugurated the LNG truck-loading unit of Shell India at Hazira; describes this as another big step towards a cleaner and greener future for India**

Shri Dharmendra Pradhan, Union Minister of Petroleum & Natural Gas inaugurated the LNG truck-loading unit of Shell India at Hazira, Gujarat. Speaking on the occasion, he said that the unit will boost availability of natural gas in off-grid areas where there are no gas pipelines and also promote the use of LNG in long-haul trucking.

Complimenting the team of Shell India on this significant initiative taken today, Shri Pradhan said that increasing competition in the LNG sector will help in the emergence of new markets, create new employment opportunities, ensure cleaner fuels for industries and facilitate environment conservation. He said that this is another big step towards a cleaner and greener future for India. “We are committed to increase the clean energy quantum in our energy mix to transform into a gas-based economy, address issues of climate change and build an Aatmanirbhar Bharat.” The Minister congratulated Shell India on this endeavour of supporting India’s environmental as well as clean energy transition goals by giving thrust to creation of necessary infrastructure to promote LNG as a transport fuel.

- **Shri Dharmendra Pradhan witnesses the signing of MOU between Indian Oil and NDMC for Development of Integrated Waste to Energy Facilities at Ranikhera in Narela**

Indian Oil Corporation Limited (IndianOil) and North Delhi Municipal Corporation (NDMC) today signed a Memorandum of Understanding (MOU) for development of integrated waste-to-energy facilities at NDMC’s landfill site at Ranikhera in Narela, New Delhi. The MoU was signed in the presence of Shri Dharmendra Pradhan, Union Minister of Petroleum & Natural Gas, Shri Anil Baijal, Lt. Governor of Delhi, Shri Jai Prakash, Mayor, North Delhi Municipal Corporation, Shri Tarun Kapoor, Secretary, Petroleum and

Natural Gas, Shri Gyanesh Bharti, Commissioner, North Delhi Municipal Corporation and Shri S M Vaidya, Chairman, Indian Oil.

As part of the MoU, IndianOil shall facilitate NDMC for identification of a concessionaire for setting up of an Integrated Waste to Energy Plant at Ranikhera in Narela. The plant would process Municipal Solid Waste (MSW) and organic waste of NDMC for producing Compressed Biogas (CBG), recycling plastics, Refuse Derived Fuel (RDF) for producing plastic or syngas and its downstream products. plastics recycling, etc.

Speaking on the occasion, Shri Pradhan said that Commissioning of this landmark project will also help in generating energy in various forms and in reducing dependence on crude imports as well as in achieving other national objectives. “Petroleum and Natural gas Ministry is committed to establish more such plants in Delhi for a sustainable future. The signing of this MoU is in line with Hon’ble Prime minister Shri Narendra Modi’s vision of carving a greener and energy-efficient future for India and also towards achieving self-reliance in energy by adopting innovative green solutions.”

Appreciating IndianOil and North DMC for coming together for setting up the project, he called for a quick expansion and replication of such pilot projects across India. Shri Dharmendra Pradhan said that such CBG Plants in the capital will not only solve the problem of solid waste in the national capital but also help in reducing the pollution and our oil dependence. He called for putting up more such plants to take care of solid waste in other areas of Delhi, including in New Delhi Municipal Council and Delhi Cantonment. He assured 100 per cent offtake of gas produced from such plants by Oil PSUs. Shri Pradhan said that the Government will enable connecting the gas produced from such plants with the PNG, CNG pipelines. He said we should find an end to end solution in a time bound and transparent manner so that 14000 to 15000 tonnes of solid waste produced in the city every day is disposed of in a safe and healthy manner. He also assured that PSUs will provide the technological help, wherever required. The Minister called for expediting the process so that the results can be seen in next couple of years. Shri Pradhan said that the Central Government is already working with Haryana to take care of the Agri wastes which will help not only reducing the pollution but also ensure additional income to the farmers for their residues.

Shri Anil Baijal mentioned about the benefits of the project for the people of National Capital. He went on to add that the city has the capacity to process only half of its waste and the commissioning of waste to energy Plants will not only provide a clean and environment-friendly way to handle solid wastes, but also generate energy, CBG, city compost, etc.

Shri Tarun Kapoor, Secretary, MoP&NG in his address mentioned that it is important to manage MSW in a scientific manner and convert it into energy. This shall fulfil the energy needs of India as well as mitigate the waste and related landfill emission problem. He said that 15 of the 5000 plants envisaged under the SATAT scheme have become operational, and there is a good demand of the gas produced in such plants due to its high quality.

Shri S M Vaidya, Chairman, IndianOil during his address stressed on the problem of waste management in Delhi. He informed that the proposed Plant shall provide a sustainable and replicable solution for waste management. Setting up of an MSW-to-energy plant shall provide multiple benefits and is also in alignment with Government initiatives like Swachh Bharat, Atmanirbhar Bharat and Make in India. It shall also provide an impetus to creation of jobs across the value chain, from collection of waste to sale of energy.

The integrated plant will process approx. 2500 million tonne of municipal solid waste collected by NDMC, recycle plastics and produce compressed bio-gas #CBG, ethanol, syngas and other value-added downstream products.

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