

# FIPI



Federation of Indian Petroleum Industry

January  
2022



## Policy & Economic Report **Oil and Gas Market**

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## Executive Summary

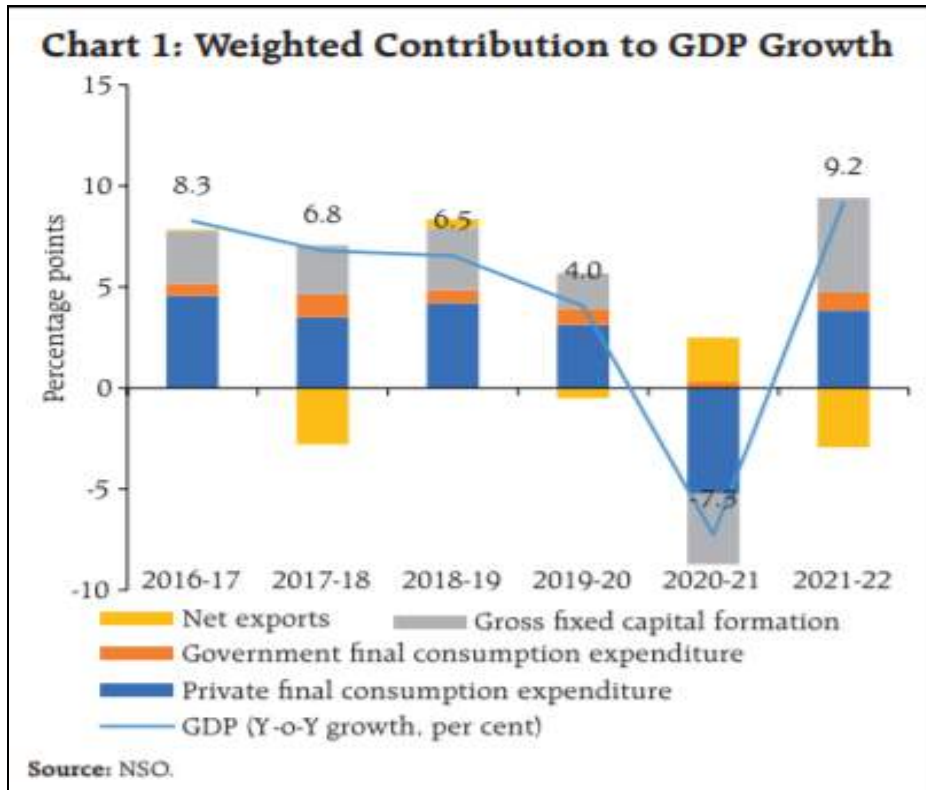
The global economy entered its recovery phase in 2021, with economies gradually reopening and vaccination campaigns getting underway. However, as the new Omicron COVID-19 variant spreads, many countries have also reimposed mobility restrictions. Global growth is expected to moderate from 5.9 % in 2021 to 4.4 % in 2022 and 3.8% in 2023.

The spread of COVID-19 variants and the effectiveness of vaccines, as well as the pace of vaccine rollouts worldwide, remain key uncertainties. Moreover, supply chain bottlenecks and sovereign debt levels in many regions, together with rising inflationary pressures and the responses of central banks, remain key factors that require close monitoring.



India's economic recovery is on a solid path amid rapid vaccination progress with less stringent social restrictions and supportive fiscal and monetary stances. Even though Indian economy has suffered from the third wave of the Covid-19 pandemic the economy will continue to show the growth momentum it has shown over the past few months.

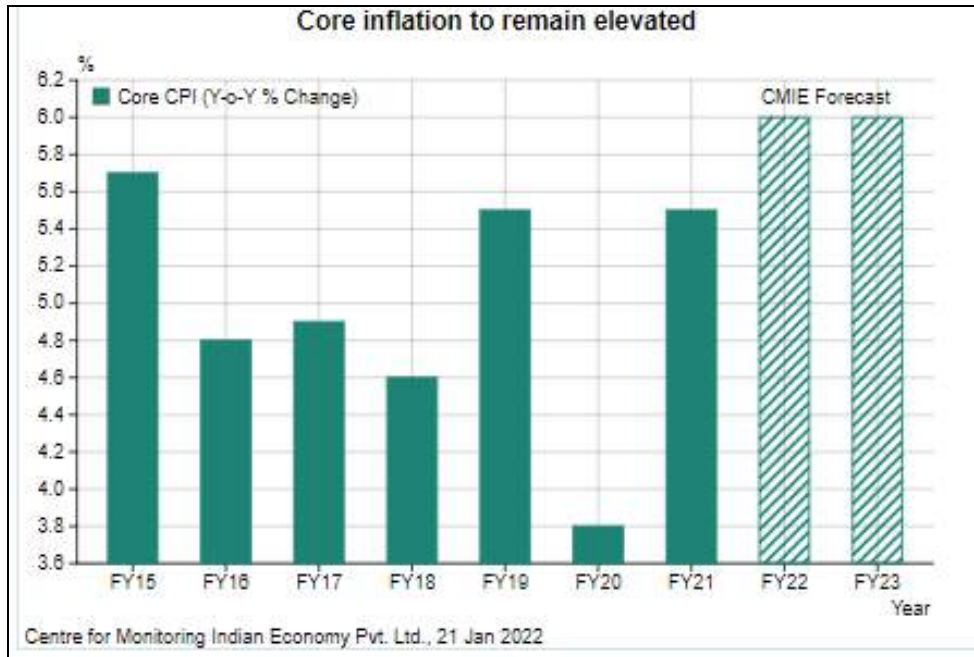
According to Economic Survey, India's GDP was seen growing at 9.2 per cent in 2021-22 and grow 8-8.5 per cent for the fiscal year 2022-23. Investment activity has picked up, as reflected by the buoyant gross fixed capital formation (GFCF). Gross Fixed Capital Formation will see strong growth of 15 % in 2021-22. In terms of sectoral growth, agriculture sector is expected to grow by 3.9% in 2021-22, industry by 11.8% and services sector by 8.2% in 2021-22. Index of Industrial Production (IIP) grew at 17.4 percent (YoY) during April-November 2021.



The seasonally adjusted IHS Markit India Manufacturing Purchasing Managers' Index (PMI) was at 54.0 in January, down from 55.5 in December and signaling the weakest improvement in the health of the sector since last September. Business confidence hit a 19-month low over concerns surrounding the pandemic and the possibility of further restrictions. Input cost inflation eased for the third month running, factory gate charges rose at a quicker pace than in December. Companies scaled up production in January, but growth was stymied by raw material scarcity, inflationary pressures and the intensification of the pandemic.

On the employment front, pressure on the labor market eased as the unemployment rate decreased to 6.73% in the month of January 2022 from 7.8% recorded in the last month. The urban unemployment rate is 8.26% in January 2022 and the rural unemployment rate is 6.01% in January 2022. Further, the labor participation rate has fallen from 40.9% in December 2021 to 40.6% as on 2 January 2022.

The retail inflation accelerated to a six-month high of 5.59% in December remaining within the central bank's 2-6% target range for the sixth consecutive month. The rise in inflation was driven by an uptick in food, clothing and footwear categories. Food inflation in December jumped to 4.5% while Core CPI inflation was largely stable at 5.85%.



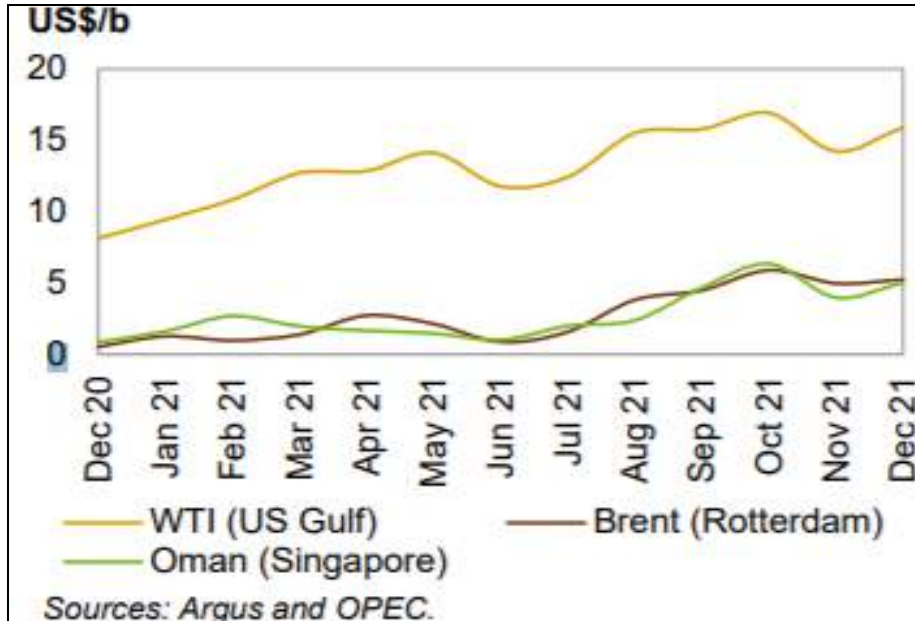
On the monetary policy front, the Reserve Bank of India (RBI) kept the repo rate at 4% in December, and the reverse repo rate at 3.35%, maintaining an accommodative monetary policy stance to support the economic recovery and help mitigate the negative impacts of COVID-19. These decisions are in consonance with the objective of achieving the medium-term target for consumer price index (CPI) inflation of 4 per cent within a band of +/- 2 per cent, while supporting growth.

The Reserve Bank of India (RBI) has projected CPI inflation at 5.7 % for the January-March quarter. For the first half of the next fiscal year, inflation is projected to be at 5 per cent.

Oil is hovering near 7-year highs amid concerns over tight supply as well as geopolitical tensions in Eastern Europe and the Middle East. Towards end of January 2022, Brent crude rose to \$90.95 a barrel while U.S. West Texas Intermediate crude rose to \$87.81 a barrel. Underlying anxiety about global supply shortages, coupled with ongoing geopolitical risks in regions like Libya, have caused the crude oil prices to a new upswing. With OPEC+ likely to stick with a gradual planned rise in its oil output target for March, oil prices will likely to stay on a bullish sentiment.

Non-OPEC liquids supply growth in 2021 is kept unchanged at around 0.7 mb/d y-o-y, to average of 63.6 mb/d. Upward revisions mainly to the US were offset by downward revisions in the supply forecasts of other countries such as Brazil, Canada, Ecuador and Norway, due to unexpected lower output in 4Q21. The crude oil production based on the January 2022 OPEC+ meeting, is expected to rise, as participants have reaffirmed their decision to continue to increase output by 0.4 million b/d each month until all of the production cuts are reversed. Further, it is expected that the recent production disruptions in Libya will be more than offset by production increases from other OPEC members.

US Gulf Coast (USGC) refining margins rebounded following a downturn witnessed the previous month. Stronger fundamentals, mainly linked to firm manufacturing amid the year-end holiday season, provided backing to USGC product markets, particularly those linked to the middle and bottom sections of the barrel.



Source: OPEC Monthly Report

The Asian gasoline 92 crack spread gained some ground backed by a pick-up in consumption levels as driving activity in the economies of Malaysia, India, Australia and Indonesia stayed above baseline levels, according to mobility indicators. The Singapore gasoline crack spread against Oman in December averaged \$12.48/b, up by 62 ¢ m-o-m and up by \$9.86 y-o-y.

Natural gas spot price at the U.S. benchmark Henry Hub is averaging at \$ 3.73/MMbtu and prices are expected to decline further as growth in dry natural gas production outpaces growth in domestic demand and exports. The recent volatility in natural gas prices is marked by deviations from winter weather expectations, the potential for extreme weather events and a rise in demand for natural gas imports in Europe and Asia where spot prices have reached record highs in the past few months.

## Economy in Focus

### 1. A snapshot of the global economy

#### Global economic growth

The global economy entered its recovery phase in 2021 with economies gradually reopening and vaccination campaigns getting underway. However, as the new Omicron COVID-19 variant spreads, many countries have reimposed mobility restrictions. According to IMF forecasts, global growth is expected to moderate from 5.9 % in 2021 to 4.4 % in 2022 and 3.8% in 2023.

The spread of COVID-19 variants and the effectiveness of vaccines as well as the pace of vaccine rollouts worldwide remain key uncertainties. Moreover, supply chain bottlenecks and sovereign debt levels in many regions together with rising inflationary pressures and the responses of central banks remain key factors that require close monitoring.



#### Divergence in growth rates

The slowdown will coincide with a widening divergence in growth rates between advanced economies and emerging and developing economies.

- Growth in advanced economies is expected to decline from 5 % in 2021 to 3.8 % in 2022 and 2.3 % in 2023.
  - The US is estimated to grow by 5.6% in 2021, while growth for 2022 is slightly lowered to 4% primarily because of continued supply shortages and end of stimulus programme.

- Euro-zone economic growth for 2021 is revised up to 5.2%, while growth for 2022 remains unchanged at 3.9%.
- Japan's economic growth forecast for 2021 is revised down to 1.8%, while growth for 2022 remains unchanged at 2.2%.
- In emerging and developing economies, however, growth is expected to drop from 7.2 % in 2021 to 5.9 % in 2022 and 5.8 percent in 2023.
  - China's growth forecast is estimated at 8.1% for 2021 and 4.8% for 2022.
  - India's forecast for 2021 stands at 9%, and for 2022 at 9%.

(real GDP, annual percent change)	ESTIMATE	PROJECTIONS	
	2021	2022	2023
<b>World Output</b>	<b>5.9</b>	<b>4.4</b>	<b>3.8</b>
<b>Advanced Economies</b>	<b>5.0</b>	<b>3.9</b>	<b>2.6</b>
United States	5.6	4.0	2.6
Euro Area	5.2	3.9	2.5
Germany	2.7	3.8	2.5
France	6.7	3.5	1.8
Italy	6.2	3.8	2.2
Spain	4.9	5.8	3.8
Japan	1.6	3.3	1.8
United Kingdom	7.2	4.7	2.3
Canada	4.7	4.1	2.8
Other Advanced Economies	4.7	3.6	2.9
<b>Emerging Market and Developing Economies</b>	<b>6.5</b>	<b>4.8</b>	<b>4.7</b>
Emerging and Developing Asia	7.2	5.9	5.8
China	8.1	4.8	5.2
India	9.0	9.0	7.1
ASEAN-5	3.1	5.6	6.0
Emerging and Developing Europe	6.5	3.5	2.9
Russia	4.5	2.8	2.1
Latin America and the Caribbean	6.8	2.4	2.6
Brazil	4.7	0.3	1.6
Mexico	5.3	2.8	2.7
Middle East and Central Asia	4.2	4.3	3.6
Saudi Arabia	2.9	4.8	2.8
Sub-Saharan Africa	4.0	3.7	4.0
Nigeria	3.0	2.7	2.7
South Africa	4.6	1.9	1.4
<b>Memorandum</b>			
Emerging Market and Middle-Income Economies	6.8	4.8	4.6
Low-Income Developing Countries	3.1	5.3	5.5

Source: IMF, *World Economic Outlook Update*, January 2022



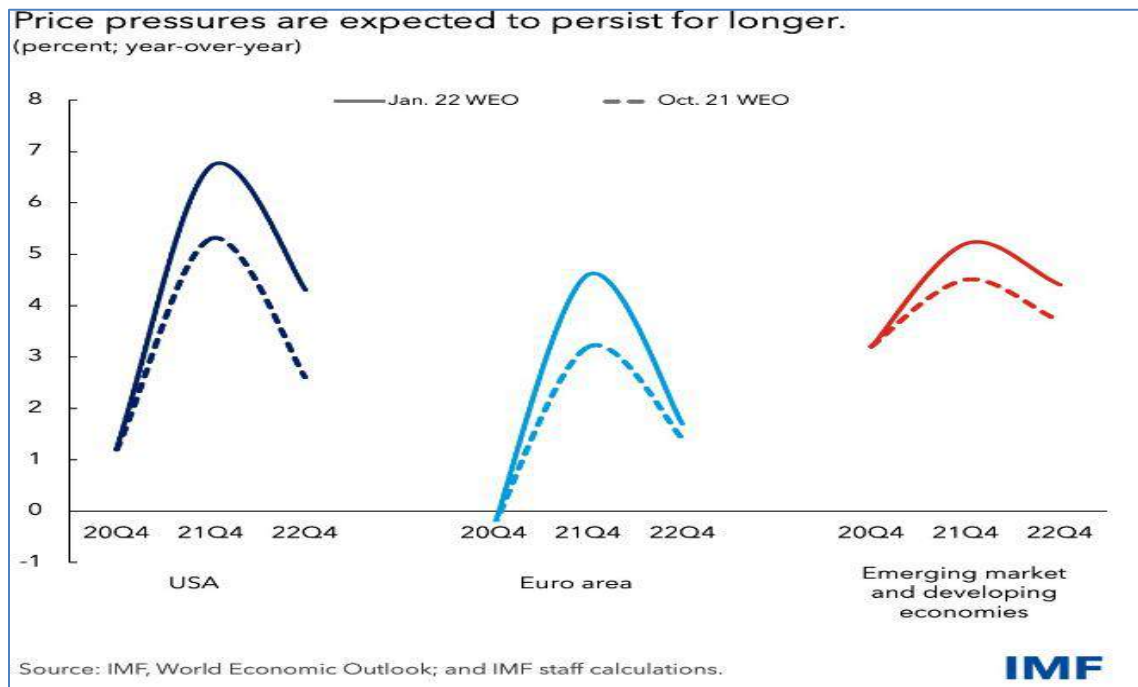
## Global Inflation

Supply disruptions weigh on economic activity and are contributing to higher inflation, adding to pressures from strong demand and elevated food and energy prices.

- With shipping bottlenecks and some critical supply shortages persisting, global price inflation will remain high in 2022.
- Elevated inflation is expected to persist with high food and energy prices continuing in 2022, notably in the United States and many emerging market and developing economies.
- Labor shortages are also contributing to the rise in inflation. In the United States, labor force participation remains below pre-pandemic levels and job vacancy rates have risen to record highs. Across Europe, COVID-19 has disrupted migrant labor flows. Mainland China's zero-COVID policy and demographic shifts are restricting labor supply. Wage pressures are most acute in service sectors where workers are most exposed to the COVID-19 virus.

### *Inflation trends:*

- Global consumer price inflation reached 5.2% year on year in November and December 2021, its highest pace since September 2008.
- Worldwide inflation will likely remain near 5.0% in early 2022 before gradually easing in response to declines in industrial and agricultural commodity prices.
- On an annual basis, global consumer price inflation picked up from 2.2% in 2020 to 3.8% in 2021 and will average 4.1% in 2022 before subsiding to 2.8% in 2023.



***Policy Stance on rising inflation:***

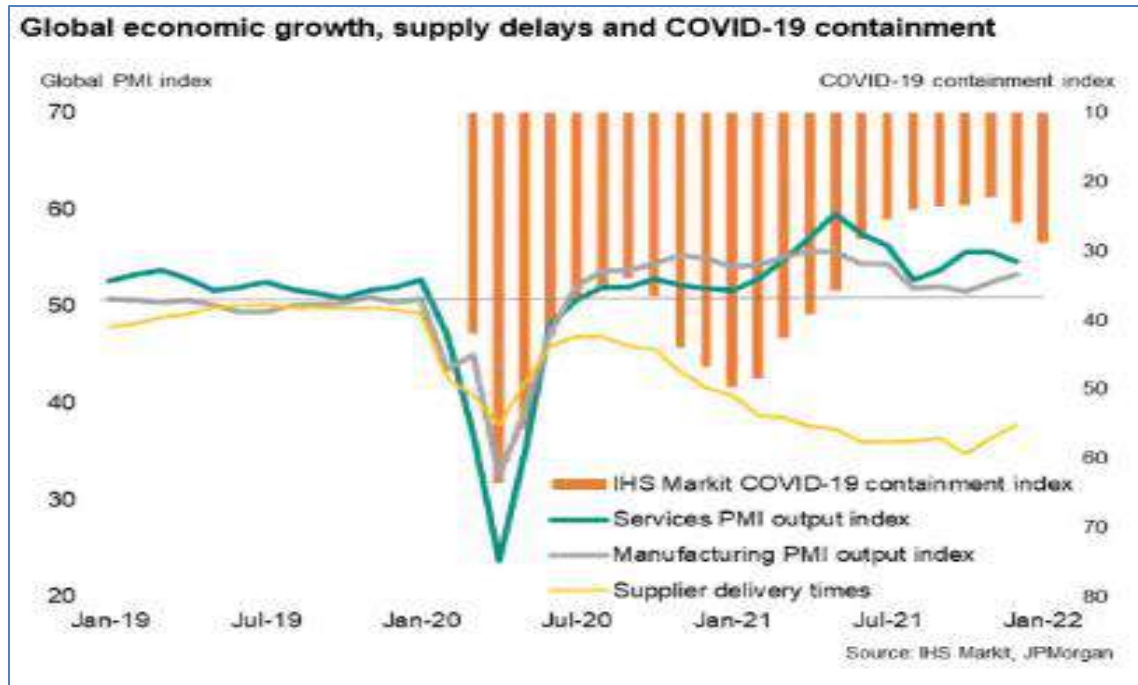
To curtail the potential long-lasting impact of inflation, the major central banks have made announcements about adjusting their Quantitative Easing (QE) programmes and have started considering the reduction of their accommodative monetary policies, taking significant decisions particularly at the G4 central bank meetings in December.

- In US, with headline inflation (CPI) reaching 7.0% y/y in December and core inflation at 5.5%, the Federal Reserve will likely start raising interest rates in mid-March 2022,
- The European Central Bank (ECB) said that it would gradually start reducing its QE measures in March 2022 and does not plan to hike interest rates before 2023.
- The Bank of England (BoE) has been the most aggressive and announced a rate increase at its December 2021 meeting. The BoE's QE measures also ended in 2021.
- The Bank of Japan (BoJ), with the largest monetary stimulus and an extensive history of QE policies, has announced a reduction of pandemic-related QE measures, but will continue its general ultra-loose monetary policy and non-pandemic-related QE measures.
- Rising inflation led central banks in Brazil and Russia to further hike interest rates, likely impacting the progress of their recoveries in 2022.

**Global PMI**

The global economy expanded for an eighteenth straight month in December, according to the JPMorgan Global PMI (compiled by IHS Markit). The rate of expansion eased to a three-month low, however, as a surge in COVID-19 cases globally weighed on service sector performance.

Both manufacturing and service sectors expanded in December, although services business activity growth eased to a three-month low. A renewed rise in COVID-19 cases, fuelled by the spread of the more infectious Omicron variant, led to increased restrictions. This implicated the service sector performance in December, particularly for those dependent on face-to-face interactions. That said, services output growth continued to surpass that of manufacturing for a ninth successive month.



Meanwhile, manufacturers reported that constraints on production eased. Supplier delivery delays also eased while price pressures cooled in December.

### Global Employment

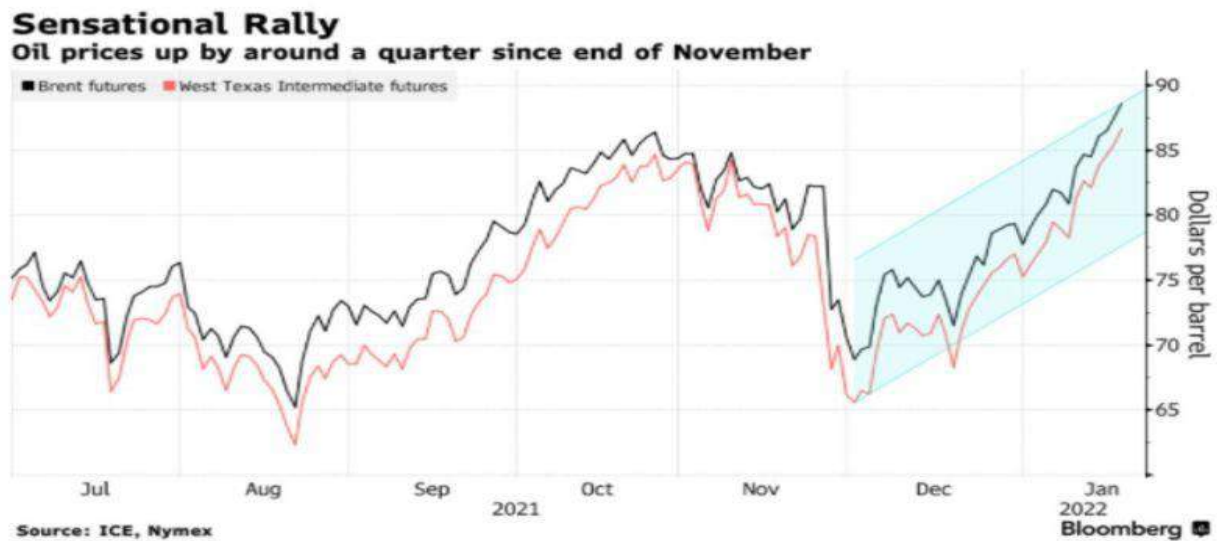
The International Labor Organization (ILO) has released its World Employment and Social Outlook – Trends 2022 (WESO Trends) report. The key findings of the report are: -

- The global unemployment level in 2022 is estimated at 207 mn, compared to 186 mn in 2019.
- Total working hours globally in 2022 is projected to be 2% below the pre-pandemic level, and that is equivalent to the loss of 52 million full-time jobs.
- The global labour force participation rate in 2022 is projected to remain 1.2 % points below that of 2019 before the pandemic began.
- In 2022 around 40 million people will no longer be participating in the global labor force.
- The impact has been particularly serious for developing nations that experienced higher levels of inequality, more divergent working conditions and weaker social protection systems.
- The European and the North American regions are showing the most encouraging signs of recovery, while South-East Asia, Latin America and the Caribbean have the most negative outlook.

## 2. World Economy Over a Barrel Amid Energy Price Surge

A surge in the price of crude oil to the highest level since 2014 has emerged as a fresh potential headwind to the recovery. Strong demand, combined with supply outages, have propelled benchmark

measures of crude since November. Goldman Sachs Group Inc. and Morgan Stanley are among the banks now predicting oil will hit \$100 a barrel in the third quarter.



The latest gains have come even amidst omicron-related lockdowns in China, the world’s biggest buyer of crude. Any easing of restrictions or a stronger expansion in the world’s second-largest economy as it continues to ease monetary policy, could trigger another leg up for oil prices. For big consuming countries, it’s a blow to household spending. From heating bills to gasoline costs, it’s another weight on the family budget.

With core inflation rates at historical highs, most central banks across the developed world are already engaged in taking back pandemic-era stimulus. Morgan Stanley’s team estimates that if Brent crude hovers around \$88 a barrel, spending on oil would amount to about 3.5% of global GDP this year.

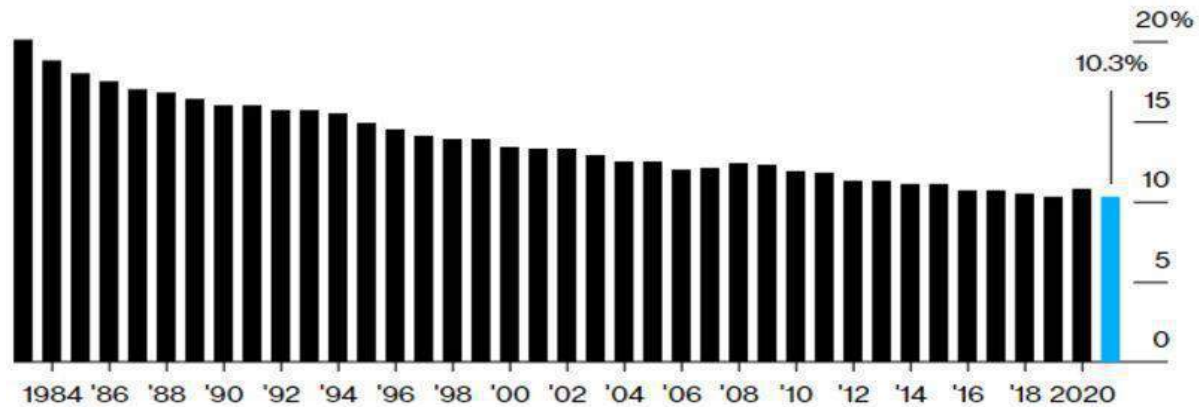
“The precise level at which demand destruction kicks in is fiendishly difficult to figure out,” the analysts wrote. But by \$100 a barrel, “sizeable regions of the world” would hit the point at which demand erosion kicks in, according to the Wall Street bank.

### The Economic Scene

After a year marked by long labour strikes and unprecedented movements to organize at some of the largest corporations in the U.S., unionization levels fell back to historic lows. The rate of union membership, or the percentage of wage and salary workers who were part of a union, dropped to 10.3% in 2021, matching the record low in 2019, according to Bureau of Labor Statistics data.

## Under Pressure

Percent of employed that are members of unions has been cut in half



Source: Bureau of Labor Statistics

Among private-sector workers, the numbers were even bleaker: Union members made up just 6.1% of that workforce, compared to 33.9% of the public sector.

### 3. Biden revives 'clean energy' program with \$1B loan guarantee

The Biden administration has issued its first clean energy loan guarantee, reviving an Obama-era program that helped launch the country's first utility-scale wind and solar farms a decade ago but has largely gone dormant in recent years. The Energy Department said it would guarantee up to \$1 billion in loans to help a Nebraska company scale up production of "clean" hydrogen to convert natural gas into commercial products used in manufacturing and agriculture.

The revived loan program is part of President Joe Biden's efforts to slash planet-warming greenhouse gas emissions in half by 2030, amid legislative gridlock that has stalled a \$2 trillion package of social and environmental initiatives.

Under President Barack Obama, the program boosted Tesla's efforts to become a behemoth in electric cars, but it stumbled after the California solar company Solyndra failed soon after receiving federal aid a decade ago, costing taxpayers more than \$500 million. Republicans and other critics seized on Solyndra as an example of wasteful spending under Obama's stimulus program.

The Biden administration is announcing steps to boost clean energy — particularly through offshore wind, renewable energy on public lands and upgrades to the electric grid. On offshore wind, the administration announced that it will hold a lease sale in the New York — off the coasts of New York and New Jersey. This lease sale could result in the generation of up to 7 gigawatts of clean energy, enough to power 2 million homes, according to a White House fact sheet.

#### 4. UNCTAD report shows developed economies leading global FDI recovery

As the world enters 2022, foreign direct investment (FDI) flows are showing a strong recovery from Covid-19. The UN Conference on Trade and Development's (UNCTAD) Investment Trends Monitor, reported that FDI flows were up by 77% in 2021 to \$1.65trn, having slumped to \$929bn in 2020.

- The developed countries saw the biggest rebound in FDI with an estimated \$777bn in inflows in 2021, three times the 2020 figure.
- The US saw FDI inflows double due to cross-border mergers and acquisitions (M&A) almost tripling in value at \$285bn. Overall US inflows saw an increase of 114% to \$323bn.
- In Europe, 80% of inflows were accounted for economies with tax incentives – with EU inflows up by 8%.
- With a 20% increase, China saw record-breaking FDI inflows in 2021 at \$179bn, driven by a strong services sector.
- Brazil is yet to fully recover but did see FDI figures double to \$58bn.

#### Developing economies lag behind

On the less positive side, in developing economies the number of investment projects into sectors related to the UN's Sustainable Development Goals (SDGs) – such as electricity, food and health – rose by only 11%. However, the overall value of both greenfield and project finance deals increased by 55%, largely due to high-value investments in the renewables sector.

Overall, investment project numbers for SDG sectors declined by 17% in the least-developed countries, which is particularly concerning given the 30% fall in 2020.

FDI inflows into developing economies did increase by 30% in 2021 compared with 2020's figures, with East, West and South East Asia, Latin America and the Caribbean overseeing a full recovery from the pandemic when it comes to foreign investment attraction.

The Association of Southeast Asian Nations region saw inflows increase by 35%, with the majority of its members registering impressive growth. However, India could not repeat its impressive M&A figures from 2020, and FDI inflows were 26% lower in 2021 when compared with 2020's figures.

#### 5. India Economy

##### India's economic growth

India's economic recovery is on a solid path amid rapid vaccination progress less stringent social restrictions and still supportive fiscal and monetary stances. Even though Indian economy has suffered

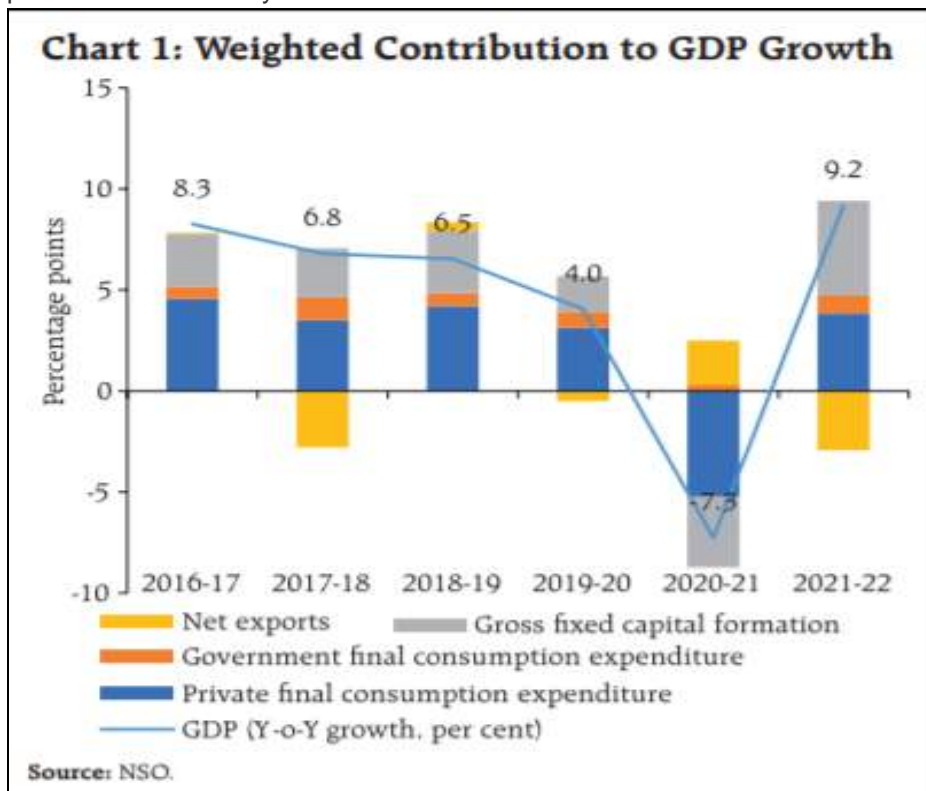
from the third wave of the Covid-19 pandemic the economy will continue to show the growth momentum it has shown over the past few months.

India has made commendable progress on the vaccination front.

- By the end of 2021, over 61 per cent of the adult population had received both doses of the vaccine and about 90 per cent of the adult population had been given a single dose of the vaccine.
- Further, Vaccination of teenagers has begun.
- The third dose of vaccination for healthcare workers and those above 60 years with co-morbidities is being rolled out. High vaccination rates will enable greater mobility and support demand recovery.

On the economic front, there has been recovery in business expectations and the anticipated improvement in both global and domestic demand. Higher capital expenditure, push to infrastructure through the new institutional framework, boost to the manufacturing sector and buoyant exports are likely to be the key drivers of growth.

According to Economic Survey, India's GDP was seen growing at 9.2 per cent in 2021-22 and grow 8-8.5 per cent for the fiscal year 2022-23



- According to Budget estimates, fiscal deficit stands at 6.9% of GDP for 2021-22 and 6.4% of GDP in 2022-23.

- Investment activity has picked up, as reflected by the buoyant gross fixed capital formation (GFCF). Gross Fixed Capital Formation will see strong growth of 15 % in 2021-22.
- In terms of sectoral growth, agriculture sector is expected to grow by 3.9% in 2021-22, industry by 11.8% and services sector by 8.2% in 2021-22. Index of Industrial Production (IIP) grew at 17.4 percent (YoY) during April-November 2021.

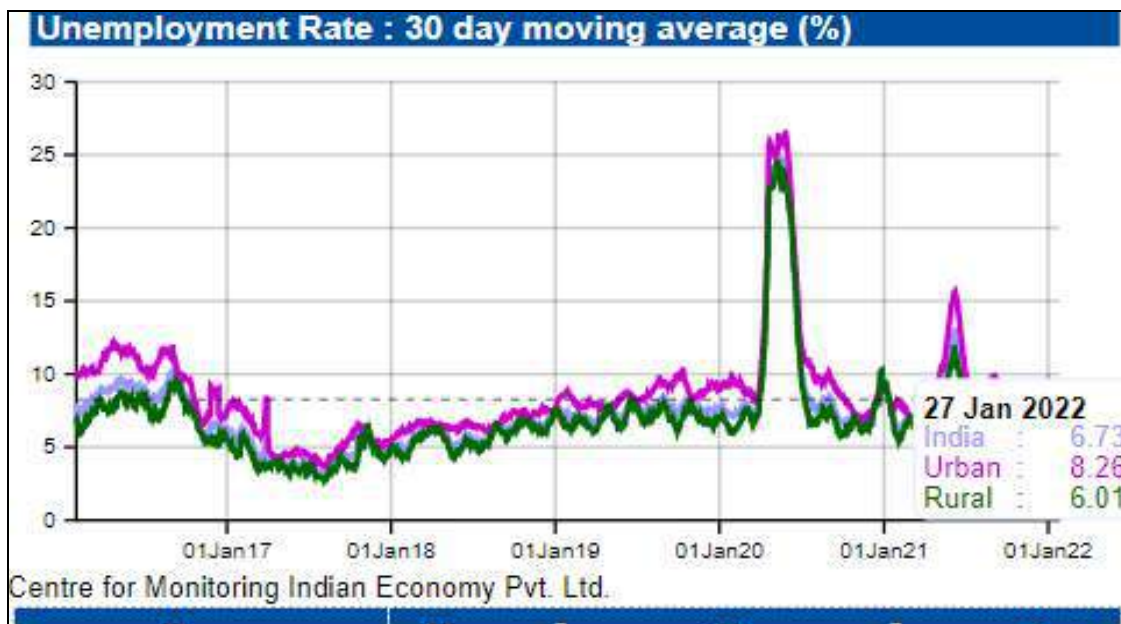
## PMI

The seasonally adjusted IHS Markit India Manufacturing Purchasing Managers’ Index (PMI) was at 54.0 in January, down from 55.5 in December and signaling the weakest improvement in the health of the sector since last September.

The operating conditions across the manufacturing industry improved at the start of the year, although the new COVID-19 wave restricted growth. Business confidence hit a 19-month low over concerns surrounding the pandemic and the possibility of further restrictions. Input cost inflation eased for the third month running, factory gate charges rose at a quicker pace than in December. Companies scaled up production in January, but growth was stymied by raw material scarcity, inflationary pressures and the intensification of the pandemic.

## Unemployment

On the employment front, pressure on the labor market eased as the unemployment rate decreased to 6.73% in the month of January 2022 from 7.8% recorded in the last month. The urban unemployment rate is 8.26% in January 2022 and the rural unemployment rate is 6.01% in January 2022. Further, the labor participation rate has fallen from 40.9% in December 2021 to 40.6% as on 2 January 2022.

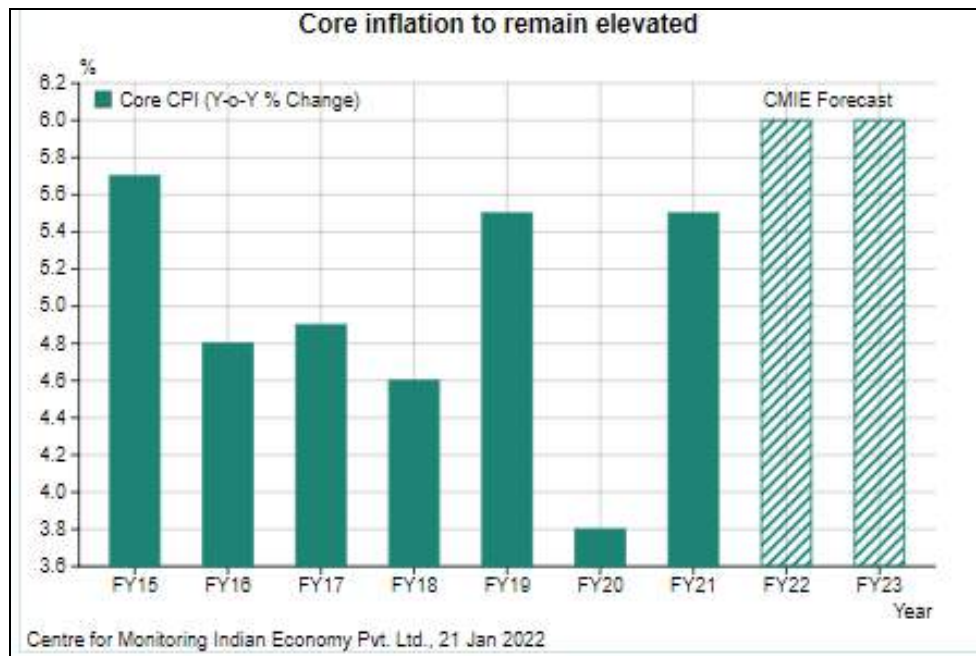




## Inflation

The retail inflation accelerated to a six-month high of 5.59% in December remaining within the central bank's 2-6% target range for the sixth consecutive month. The rise in inflation was driven by an uptick in food, clothing and footwear categories. Food inflation in December jumped to 4.5% while Core CPI inflation was largely stable at 5.85% in December.

There is uncertainty about the outlook as there has been a broad-based moderation in prices of many food items this month, but crude prices have rallied to record highs. The average price of the Indian crude oil basket rose to \$79.5 a barrel during January, up 8.6% from \$73.4 in December.



On the monetary policy front, the Reserve Bank of India (RBI) kept the repo rate at 4% in December, and the reverse repo rate at 3.35%, maintaining an accommodative monetary policy stance to support the economic recovery and help mitigate the negative impacts of COVID-19. These decisions are in consonance with the objective of achieving the medium-term target for consumer price index (CPI) inflation of 4 per cent within a band of +/- 2 per cent, while supporting growth.

For future, the trajectory of inflation in India will be influenced by global headwinds such as elevated commodity prices, global logistics, supply side bottlenecks and prices of industrial raw materials. Several firms, particularly in the consumer goods sector have hiked the prices of their products due to rise in input costs. Cost push pressures are likely to weigh on core inflation in the coming months.

The Reserve Bank of India (RBI) has projected CPI inflation at 5.7 % for the January-March quarter. For the first half of the next fiscal year, inflation is projected to be at 5 per cent.

## India's rise in \$100 trillion global GDP: Centre for Economic and Business Research

According to Centre for Economic and Business Research, better than expected economic growth (at 4.2 per cent) will propel world GDP to over \$100 trillion, higher than it was pre-pandemic and ahead of the previous deadline of 2024. With this India will overtake France in 2022 to occupy the position of the sixth-largest economy in the world.

The GDP of the United States at over \$22 trillion is larger than the combined GDP of over 150 countries. Just four countries — US, China, Japan and Germany — account for over half of world GDP. That said, the center of economic gravity is visibly shifting to Asia with China, Japan, India and Korea adding up to over \$26 trillion in 2021.

The report forecasts that while China will overtake the US to top the table in 2030, India will overtake Germany by 2031 to be the third largest economy of the world with a GDP of over \$6.8 trillion. It is true that the rise and re-ranking of China and India was and is powered by demography.

## 6. Economic Survey and Union Budget 2022: Key Highlights

- Indian economy estimated to grow by 9.2 percent in real terms in 2021-22 and by 8- 8.5 percent in real terms in 2022-23.
- Agriculture and allied sectors expected to grow by 3.9 %; industry by 11.8 % and services sector by 8.2 % in 2021-22.
- On demand side, consumption estimated to grow by 7.0 percent, Gross Fixed Capital Formation (GFCF) by 15 percent, exports by 16.5 percent and imports by 29.4 percent in 2021-22.
- The revenue receipts from the Central Government (April to November, 2021) have gone up by 67.2 percent as against an expected growth of 9.6 percent in the 2021-22 Budget Estimates
- During April-November 2021, Capex has grown by 13.5 percent (YoY) with focus on infrastructure intensive sectors
- India's merchandise exports and imports rebounded strongly and surpassed pre-COVID levels during the current financial year.
- Net capital flows were higher at US\$ 65.6 billion in the first half of 2021-22, on account of continued inflow of foreign investment, revival in net external commercial borrowings, higher banking capital and additional special drawing rights (SDR) allocation.
- Foreign Exchange Reserves crossed US\$ 600 billion in the first half of 2021-22 and touched US \$ 633.6 billion as of December 31, 2021. As of end-November 2021, India was the fourth largest forex reserves holder in the world after China, Japan and Switzerland.
- The average headline CPI-Combined inflation moderated to 5.2 per cent in 2021-22 (April-December) from 6.6 per cent in the corresponding period of 2020-21.
- Reduction in central excise and subsequent cuts in Value Added Tax by most States helped ease petrol and diesel prices.

- Wholesale inflation based on Wholesale Price Index (WPI) rose to 12.5 per cent during 2021-22 (April to December). This has been attributed to: low base in the previous year, pick-up in economic activity, sharp increase in international prices of crude oil and other imported inputs and high freight costs.
- Introduction of Production Linked Incentive (PLI) scheme, major boost provided to infrastructure-both physical as well as digital, along with measures to reduce transaction costs and improve ease of doing business.
- During April-November FY22, Center's fiscal and revenue deficits as a proportion of their corresponding BE stood respectively at 46.2% and 38.8%, their lowest levels since FY01.
- Merchandise exports and imports growth was elevated at 38.9% and 38.5% in December 2021 as compared to 27.2% and 56.6% respectively in November 2021.

### Union Budget 2022: Key Highlights

The Union Budget seeks to complement macro-economic level growth with a focus on micro-economic level all-inclusive welfare. The Union Minister for Finance & Corporate Affairs, Smt Nirmala Sitharaman tabled the Union Budget 2022-23 in Parliament on 1st February 2022.

The Budget mentioned about the overall sharp rebound and recovery, with India's economic growth in the current year estimated to be 9.2 %, highest among all large economies.

The budget provides impetus for growth along with four priorities:

- PM Gati Shakti
- Inclusive Development
- Productivity Enhancement & Investment, Sunrise opportunities, Energy Transition, and Climate Action.
- Financing of investments

The key highlights of the budget are as follows:

- The Budget stepped up the capital expenditure sharply to Rs 7.50 lakh crore to attract more private investment and attract growth.
- PM GatiShakti is a transformative approach which is driven by seven engines, namely, Roads, Railways, Airports, Ports, Mass Transport, Waterways, and Logistics Infrastructure. These engines are supported by the complementary roles of Energy Transmission, IT Communication, Bulk Water & Sewerage, and Social Infrastructure.
- The scope of PM GatiShakti National Master Plan will encompass the seven engines for economic transformation, seamless multimodal connectivity and logistics efficiency. It will also include the infrastructure developed by the state governments as per the GatiShakti Master Plan.

- The Government has planned to expand the National Highways network by 25,000 km in 2022-23 at an investment of Rs. 20,000 crores.
- Contracts for implementation of Multimodal Logistics Parks at four locations through PPP mode will be awarded in 2022-23.
- Railways will develop new products and efficient logistics services for small farmers and Small and Medium Enterprises. 'One Station-One Product' concept will be popularized to help local businesses & supply chains.
- As a part of Atmanirbhar Bharat, 2,000 km of network will be brought under Kavach, the indigenous world-class technology for safety and capacity augmentation in 2022-23.
- National Ropeways Development Programme will be taken up on PPP mode and Contracts for 8 ropeway projects for a length of 60 km will be awarded in 2022-23.
- Chemical-free Natural Farming will be promoted throughout the country, with a focus on farmers' lands in 5-km wide corridors along river Ganga, at the first stage.
- 2023 has been announced as the International Year of Millets. Support will be provided for post-harvest value addition, enhancing domestic consumption, and for branding millet products nationally and internationally.
- Use of 'Kisan Drones' will be promoted for crop assessment, digitization of land records, spraying of insecticides, and nutrients.
- Implementation of the Ken-Betwa Link Project, at an estimated cost of Rs. 44,605 crore will be taken up. This is aimed at providing irrigation benefits to 9.08 lakh hectare of farmers' lands, drinking water supply for 62 lakh people, 103 MW of Hydro, and 27 MW of solar power. Allocations of Rs. 4,300 crore in RE 2021-22 and Rs. 1,400 crore in 2022-23 have been made for this project.
- The ECLGS will be extended up to March 2023 and its guarantee cover will be expanded by Rs. 50,000 crore to total cover of Rs. 5 lakh crore, with the additional amount being earmarked exclusively for the hospitality and related enterprises.
- An open platform, for the National Digital Health Ecosystem will be rolled out.
- Allocation of Rs. 60,000 crore towards coverage of Har Ghar, Nal Se Jal has been made with an aim to cover 3.8 crore households in 2022-23.
- In 2022-23 80 lakh houses will be completed for the identified eligible beneficiaries of PM Awas Yojana, both rural and urban. Rs. 48,000 crore is allocated for this purpose.
- New scheme PM-DevINE launched to fund infrastructure and social development projects in the North-East- an allocation of Rs. 1,500 cr made.
- In 2022, 100 per cent of 1.5 lakh post offices will come on the core banking system enabling financial inclusion and access to accounts through 11 net banking, mobile banking, ATMs, and also provide online transfer of funds between post office accounts and bank accounts.
- The next phase of Ease of Doing Business EODB 2.0 and Ease of Living, will be launched. This new phase will be guided by an active involvement of the states, digitization of manual processes and interventions, integration of the central and state-level systems through IT bridges.

- The issuance of e-Passports using embedded chip and futuristic technology will be rolled out in 2022-23
- The Special Economic Zones Act will be replaced with a new legislation that will enable the states to become partners in ‘Development of Enterprise and Service Hubs’
- The Union Budget set up a massive road map for India to be a technology powerhouse in infrastructure, financial services, agriculture and national defense. Setting up a roadmap for adoption of Central Bank Digital Currency and making digital and fintech as the priority of the Gov't stands out in the Budget 2022 announcement.
- Govt has laid down initiatives in the Union Budget to lower carbon emissions.
  - The launch of sovereign green bonds as part of government’s borrowing programme in FY23,
  - a battery-swapping policy to boost EV ecosystem, to facilitate domestic manufacturing for the ambitious goal of 280 GW of installed solar capacity by 2030,
  - an additional allocation of Rs 19,500 crore for PLI scheme for manufacturing of high-efficiency solar modules.
  - Government has plans of setting up 4 pilot projects for coal gasification
  - Govt would also impose additional excise duty of Rs 2/litre on Unblended fuel; which will promote blending biofuels in petrol and diesel.
  - In addition, private sector will be encouraged to create sustainable and innovative business models for battery and energy as a service, improving the efficiency in the EV ecosystem
- Defense R&D will be opened up for industry, startups and academia with 25 per cent of defense R&D budget earmarked
- Energy Service Company (ESCO) business model will be introduced to facilitate capacity building and awareness for energy audits, performance contracts, and common measurement & verification protocol.
- Data Centres and Energy Storage Systems including dense charging infrastructure and grid-scale battery systems will be included in the harmonized list of infrastructure.
- The Budget highlighted about fiscal management.
  - As against a total expenditure of Rs. 34.83 lakh crore projected in the Budget Estimates 2021-22, the Revised Estimate is Rs. 37.70 lakh crore. The Revised Estimate of capital expenditure is Rs. 6.03 lakh crore.
  - The revised Fiscal Deficit in the current year is estimated at 6.9 per cent of GDP as against 6.8 per cent projected in the Budget Estimates. The Fiscal Deficit in 2022-23 is estimated at 6.4 per cent of GDP.
- A new provision permitting taxpayers to file an Updated Return on payment of additional tax. This updated return can be filed within two years from the end of the relevant assessment year.
- Scheme for design-led manufacturing to be launched to build a strong ecosystem for 5G as part of the Production Linked Incentive Scheme.

## Lessons from Economics

### Public Goods

Nobel laureate Economist Paul Samuelson, defines a public goods as a goods having one or both of the characteristics of non-excludability and non-rivalrous.

1. Non-excludability means that it is difficult to keep people from consuming the goods once it has been produced, for example: - streetlight is not excludable: if person A pays for a streetlight to be installed, he cannot stop his neighbor B from benefitting from it.
2. Non-rivalrous means that an individual's consumption of the goods does not diminish others' ability to consume it, for example: - music: A's enjoyment of music in no way diminishes B's ability to do the same.

The government plays a significant role in providing goods such as national defense, infrastructure, education, security, and fire and environmental protection almost everywhere and generally available for the benefit of its citizens. These goods are often referred to as "public goods"

Goods with these characteristics will be underproduced, or may not be produced at all in the private sector, so economic efficiency requires that the government to contribute to the production of public goods, and then allow all citizens to consume them.

The following are the examples of public goods: -

1. National defense: - is a paradigmatic example of a public goods. Not only does A's consumption of national defense not reduce B's consumption; he could not prevent him from consumption if he tried. Food, clothes and flats are paradigmatic examples of private goods.
2. Education & Science: - It is easily possible to exclude individuals from being schooled, and so having education/degree is a private goods. However, the more educated the general population is, the more individuals' benefit—in a manner that is non-excludable and non-rivalrous. A better educated population makes it easier for businesses to thrive, and everybody profits from a thriving economy. It is difficult to exclude individuals from a thriving economy and a given individual's benefit is not diminished by anybody else's benefit.
3. Infrastructure: - Infrastructure as a public goods is that it tends to lead to positive externalities. Paradigmatic examples of infrastructure are often not public goods. Roads and motorways are excludable, as the existence of toll roads attests. If the toll for a private road is sufficiently low, it can be rivalrous as well due to congestion. The same can be said about the internet.
4. Environment:- Clean air is a paradigmatic good. It is impossible to exclude him or her from benefitting from clean air. Example: - the absence of littering. If A decide not to litter, he cannot easily prevent you from enjoying the clean space, and your enjoyment of it does not reduce anyone else's.

5. Public health:- Individuals benefit from a healthy population in a variety of ways. For example, the fewer individuals are infected with a contagious disease, the less likely it is that any given (currently healthy) infects him- or herself. These benefits obtain in a non-excludable and non-rivalrous manner.

**Free-Rider Problem: -**

The production of public goods results in positive externalities for which producers don't receive full payment. Consumers can take advantage of public goods without paying for them. This is called the "free-rider problem."

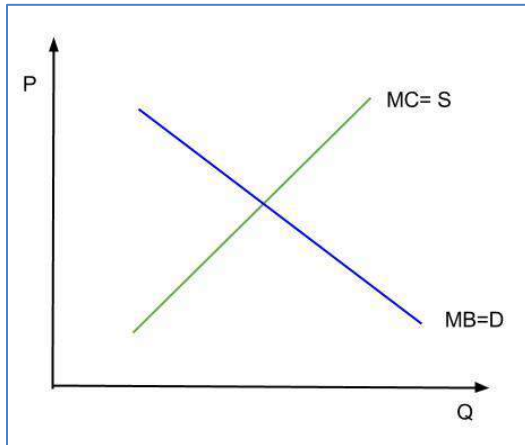
The Free rider problem occurs when we seek to gain a benefit without making any contribution. For instance, with vaccines, we could argue those who don't take a vaccine are free-riding on others who are making efforts to reduce Covid incidence in society.

**Optimal Quantity of Public Goods: -**

The government is providing an efficient quantity of a public goods when its marginal benefit equals its marginal cost.

1. Collective demand for a public goods is the vertical summation of individual demand curves. It shows the price society is willing to pay for a given quantity of a public goods. It is equal to the marginal benefit curve.
2. The supply curve is upward sloping, due to the law of diminishing returns. It is equal to its marginal cost curve i.e., the marginal cost increases as the quantity of the goods produced increases.
3. The optimal quantity of a public goods occurs where the demand (marginal benefit) curve intersects the supply (marginal cost) curve.
4. The government uses cost-benefit analysis to decide whether to provide a particular goods.
  - If MB is greater than MC there is an under-allocation of a public goods.
  - If MC is greater than MB there is an overallocation of a public goods.
  - When  $MC = MB$  then there is an optimal allocation of public goods.

## Cost-Benefit Analysis



- The positive and negative effects captured by cost-benefit analysis may include effects on consumers, effects on non-consumers, externality effects, or other social benefits or costs.
- The guiding principle is to list all parties affected by a project and add a negative or positive value that they ascribe to the project's effect on their welfare.
- Benefits and costs are expressed in monetary terms, and are adjusted for the time value of money, so that all flows of benefits and costs over time are expressed in terms of their net present value.

### Examples of Public Goods in real world:

#### Example 1: - Cost Benefit Analysis of building a highway

- A government is considering a project to widen a highway.
- The benefits side of the analysis might include time savings for passengers who can avoid traffic jam, an increase in the number of passenger trips and lives saved by dint of fewer car accidents.
- The cost side of the analysis would include the cost of land that must be acquired prior to construction, and maintenance.
- The Govt assigns a monetary value to all costs and benefits.
- Calculate the net benefit of the project, adjust for inflation and apply the discount rate to calculate present value of the project.
- Finally make recommendation about project.
- If the benefit outweighs the cost, then the government should proceed with the project.

#### Example 2: - Public Health (Covid behaviour)

Public health can be seen as a public good. If one takes precautions to remain healthy and not pass on Covid, he benefits from good health, but others also benefit. If he doesn't take any precautions, like no vaccine, no mask, no social distancing then he is more likely to catch Covid. It is not just a personal cost but when infected, it could pass on to others, which causes both health and economic costs to the rest of society. Therefore, vaccines have some elements of the public good. Because if we stay free of covid, everyone else benefits from a lower covid incidence.

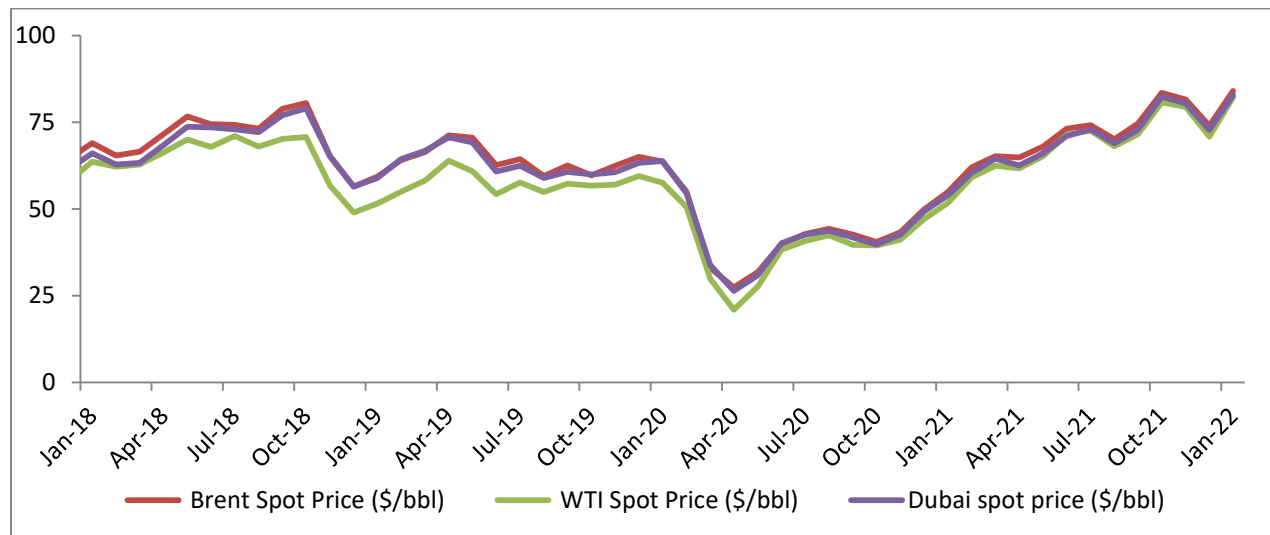


## Oil Market

### Crude oil price – Monthly Review

Oil is, hovering near 7-year highs, amid concerns over tight supply as well as geopolitical tensions in Eastern Europe and the Middle East. Towards end of January 2022, Brent crude rose to \$90.95 a barrel while U.S. West Texas Intermediate crude rose to \$87.81 a barrel. Underlying anxiety about global supply shortages, coupled with ongoing geopolitical risks in regions like Libya, have caused the crude oil prices to a new upswing. With OPEC+ likely to stick with a gradual planned rise in its oil output target for March, oil prices will likely to stay on a bullish sentiment. Further, geopolitical tensions between Russia and the West also underpinned rising crude prices.

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



Source: WORLD BANK

- Brent crude price averaged \$ 83.97 per bbl in January 2022, up by 13.5 % on a month on month (MoM) and 53.1 % on year on year (YoY) basis, respectively.
- WTI crude price averaged \$ 82.20 per bbl in January 2022, up by 16.0 % on a month on month (MoM) and up by 59.0 % on year on year (YoY) basis, respectively.
- Dubai crude price averaged \$ 82.80 per bbl in January 2022, up by 13.8 % on a month on month (MoM) and up by 53.5 % on year on year (YoY) basis, respectively.

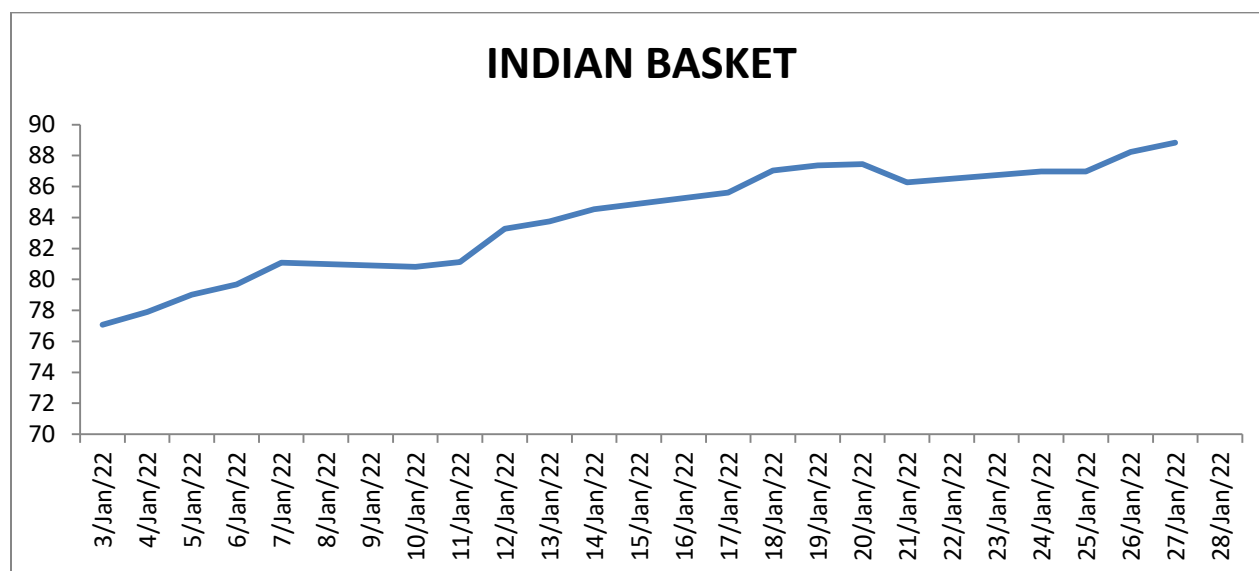
**Table 1: Crude oil price in January, 2022**

Crude oil	Price (\$/bbl) in January 2022	MoM (%) change	YoY (%) change
<b>Brent</b>	83.97	13.5%	53.1%
<b>WTI</b>	82.20	16.0%	59.0%
<b>Dubai</b>	82.80	13.8%	53.5%

Source: WORLD BANK

## Indian Basket Crude oil price

**Figure 2: Indian crude oil basket price in \$ per bbl**



Source: Petroleum Planning & Analysis Cell

- Indian crude basket price averaged \$ 83.84 per barrel in January 2022, up by 15.1 % on Month on Month (M-o-M) and 53.6 % on a year on year (Y-o-Y) basis, respectively.

## Oil production expected to outpace demand

Non-OPEC liquids supply growth in 2021 is kept unchanged at around 0.7 mb/d y-o-y, to average of 63.6 mb/d. Upward revisions mainly to the US were offset by downward revisions in the supply forecasts of other countries such as Brazil, Canada, Ecuador and Norway, due to unexpected lower output in 4Q21. Non-OPEC supply growth for 2022 also remains broadly unchanged at 3.0 mb/d y-o-y, to average 66.7 mb/d.

The crude oil production based on the January 2022 OPEC+ meeting, is expected to rise, as participants have reaffirmed their decision to continue to increase output by 0.4 million b/d each month until all of the production cuts are reversed. Further, it is expected that the recent production disruptions in Libya will be more than offset by production increases from other OPEC members.

### Oil demand & supply

- For 2021, world oil demand growth remains unchanged at 5.7 mb/d. Oil demand growth in the OECD is estimated to have averaged 2.5 mb/d and, in the non-OECD region, oil demand growth is estimated at 3.1 mb/d for the year. In 2022, the forecast for world oil demand growth also remains unchanged at 4.2 mb/d, with total global consumption at 100.8 mb/d. In the OECD, oil demand is forecast to grow by 1.8 mb/d, while in the non-OECD oil demand is projected to increase by 2.3 mb/d.
- Non-OPEC liquids supply growth in 2021 remains unchanged at around 0.7 mb/d, y-o-y, to average 63.6 mb/d y. The 2021 oil supply estimate primarily sees growth in Canada, Russia, China, the US, Guyana, Norway, Argentina and Qatar, while output is expected to have declined in the UK, Brazil, Colombia and Indonesia. Similarly, the non-OPEC supply growth forecast for 2022 is also unchanged at around 3.0 mb/d, to average 66.7 mb/d. The main drivers of liquids supply growth are expected to be the US and Russia, followed by Brazil, Canada, Kazakhstan, Norway and Guyana.

<b>Table 2: World Oil demand in mbpd</b>	<b>2021</b>	<b>1Q2022</b>	<b>2Q2022</b>	<b>3Q2022</b>	<b>4Q2022</b>	<b>2022</b>	<b>Growth</b>	<b>%</b>
<b>Total OECD</b>	<b>44.53</b>	<b>44.58</b>	<b>45.86</b>	<b>47.47</b>	<b>47.49</b>	<b>46.37</b>	<b>1.84</b>	<b>4.13</b>
~ of which US	19.95	19.69	21.07	21.36	21.23	20.85	0.90	4.50
<b>Total Non-OECD</b>	<b>52.10</b>	<b>54.55</b>	<b>53.90</b>	<b>53.82</b>	<b>55.40</b>	<b>54.42</b>	<b>2.32</b>	<b>4.45</b>
~ of which India	4.84	5.48	4.82	4.97	5.64	5.23	0.39	8.07
~ of which China	14.50	14.64	15.44	15.00	15.60	15.17	0.66	4.58
<b>Total world</b>	<b>96.63</b>	<b>99.13</b>	<b>99.75</b>	<b>101.28</b>	<b>102.90</b>	<b>100.79</b>	<b>4.15</b>	<b>4.30</b>

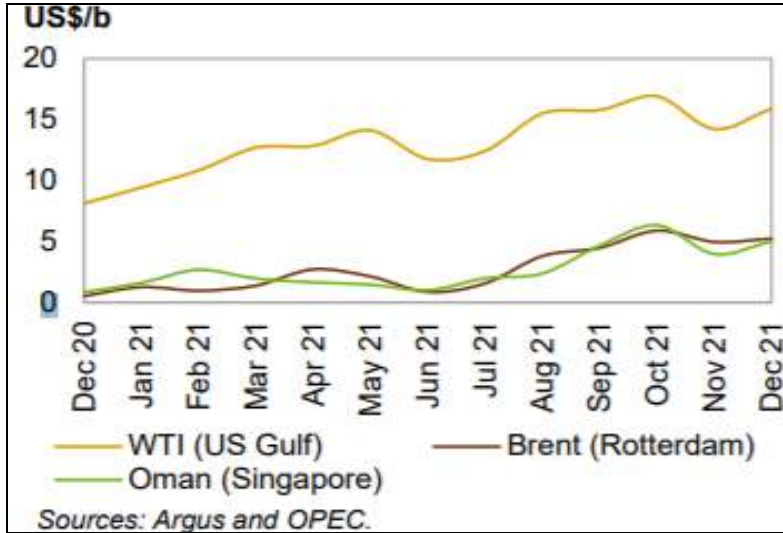
Source: OPEC monthly report, January 2022

Note: \*2021-22 = Forecast. Totals may not add up due to independent rounding

### Global petroleum product prices

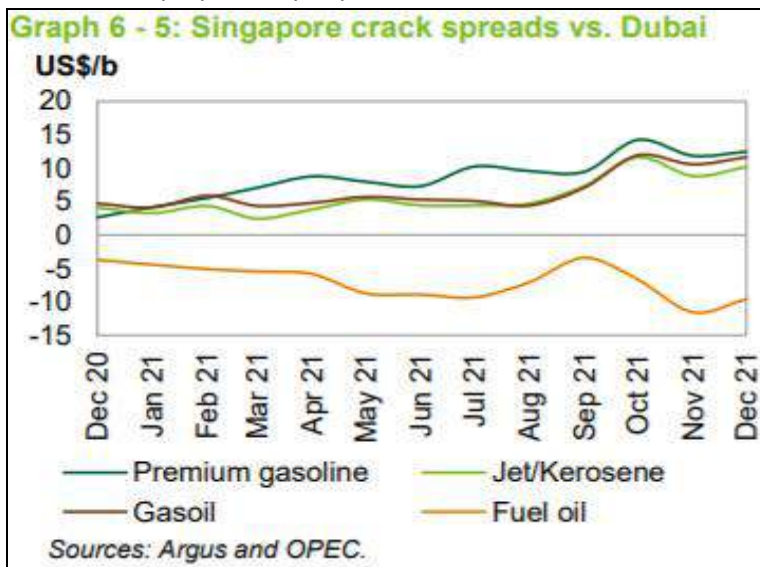
US Gulf Coast (USGC) refining margins rebounded following a downturn witnessed the previous month. Stronger fundamentals, mainly linked to firm manufacturing amid the year-end holiday season, provided backing to USGC product markets, particularly those linked to the middle and bottom sections of the barrel. At the same time, refineries continued to ramp up refinery processing rates in line with historical trends. Total US refinery intakes were up by 270 tb/d in December relative to the previous month.

Refinery margins in Europe trended upward, supported by a short product balance within the region as product inventory levels remained relatively low, while refiners appeared to cautiously manage their processing rates to safeguard margins. This positive performance was also driven by an improvement in fuel consumption levels amid solid exports ahead of the holiday season, with robust support derived from the middle and bottom sections of the barrel.



In Asia, margins strengthened, as strong regional product demand amid suppressed product deliveries from China contributed to considerable gains at the middle and bottom sections of the barrel. The overall estimated rise in Asian product output was estimated to be 140 tb/d higher relative to the previous month. A recent rise in COVID-19 infection rates, mainly in China and India, has triggered concerns over the possibility of a renewed lockdown and mobility restrictions, which could lead to pressure on product markets for both countries in the coming month.

The Asian gasoline 92 crack spread gained some ground backed by a pick-up in consumption levels as driving activity in the economies of Malaysia, India, Australia and Indonesia stayed above baseline levels, according to mobility indicators. The hefty reduction in Chinese gasoline exports have largely contributed to lower volume availability in the region, which provided support to the Asian gasoline complex. The Singapore gasoline crack spread against Oman in December averaged \$12.48/b, up by 62 ¢ m-o-m and up by \$9.86 y-o-y.



Source: OPEC Monthly Report

**Table 3: Singapore FOB, refined product prices (\$/bbl)**

Singapore product prices	Price (\$/b) in December 2021	MoM (%) change	YoY (%) change
Naptha	77.82	-7.6%	62.8%
Premium gasoline (unleaded 95)	87.92	-7.5%	64.6%
Regular gasoline (unleaded 92)	85.79	-6.9%	63.7%
Jet/Kerosene	83.47	-6.3%	54.9%
Gasoil/Diesel (50 ppm)	85.66	-6.0%	55.2%
Fuel oil (180 cst 2.0% S)	84.50	-6.8%	55.3%
Fuel oil (380 cst 3.5% S)	63.75	-7.3%	38.3%

Source: OPEC

## Petroleum products consumption in India

### Monthly Review:

- The consumption of petroleum products during April-December 2021 with a volume of 148.32 MMT reported a growth of 4.93% compared to the volume of 141.355 MMT during the same period of the previous year.
- MS (Petrol) consumption during the month of December 2021 with a volume of 2.81 MMT recorded a growth of 4.1 % over the volume of 2.7 MMT in December 2020.
- HSD (Diesel) consumption during the month of December 2021 with a volume of 7.3 MMT recorded a growth of 7.1 % of the volume of 7.2 MMT in the month of December 2020.
- LPG consumption during the month of December 2021 with a volume of 2.47 MMT recorded de-growth of -2.1 % against a volume of 2.52 MMT in the month of December 2020.
- ATF consumption during December 2021 with a volume of 0.55 MMT registered a growth of 29.0 % over a volume of 0.42 MMT during the month of December 2020.
- Bitumen consumption during December 2021 with a volume of 0.70 MMT recorded de-growth of -8.7 % on YOY change.
- Kerosene (SKO) consumption registered de-growth of -11.77 % in December 2021 as compared to December 2020.

**Table 4: Petroleum products consumption in India, December 2021**

CONSUMPTION OF PETROLEUM PRODUCTS (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,476	5.7%	-2.1%
Naptha	1,187	4.9%	-4.1%
MS	2,816	6.5%	4.1%
ATF	552	9.6%	29.0%
SKO	119	-3.2%	-11.7%
HSD	7,305	12.3%	7.1%
LDO	93	42.5%	7.5%
Lubricants & Greases	396	3.6%	19.1%
FO & LSHS	542	8.0%	-3.0%
Bitumen	695	23.5%	-8.7%
Petroleum coke	1,060	5.6%	-33.5%
Others	1,192	-12.4%	14.0%
TOTAL	18,434	7.6%	-0.9%

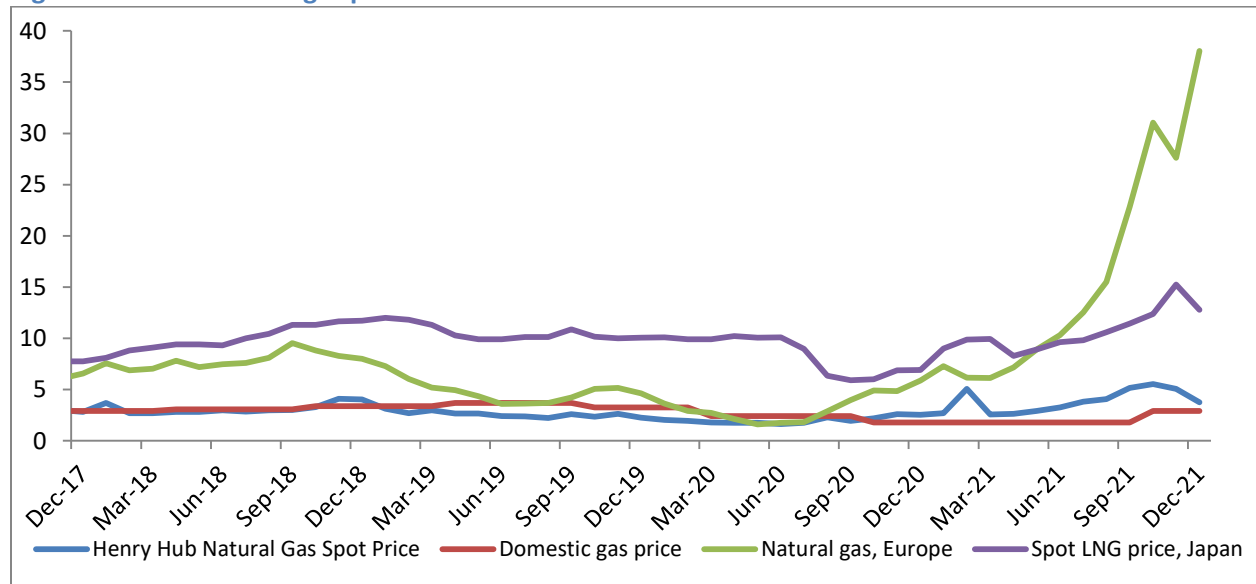
Source: PPAC

# Natural Gas Market

## Natural Gas Price – Monthly Review

- Natural gas spot price at the U.S. benchmark Henry Hub is averaging at \$ 3.73/MMbtu and prices are expected to decline further as growth in dry natural gas production outpaces growth in domestic demand and exports. The recent volatility in natural gas prices is marked by deviations from winter weather expectations, the potential for extreme weather events and a rise in demand for natural gas imports in Europe and Asia where spot prices have reached record highs in the past few months.
- Japan Liquefied Natural Gas Import Price remains at same level as last month at 12.77 \$/mmbtu.
- The price of domestically produced natural gas would be \$2.90 per million British thermal unit (mmBtu) from October 1, 2021, to March 31, 2022. The price of domestic gas price has been hiked by 62 percent from the previous revision which was \$1.79 per mmBtu for April 2021 to September 2021. Further, the maximum sale price allowed to natural gas production from deep-water, ultra-deep-water, high pressure and high-temperature discoveries was increased from \$3.62 per mmBtu to \$ 6.13 per mmBtu.

Figure 3: Global natural gas price trends



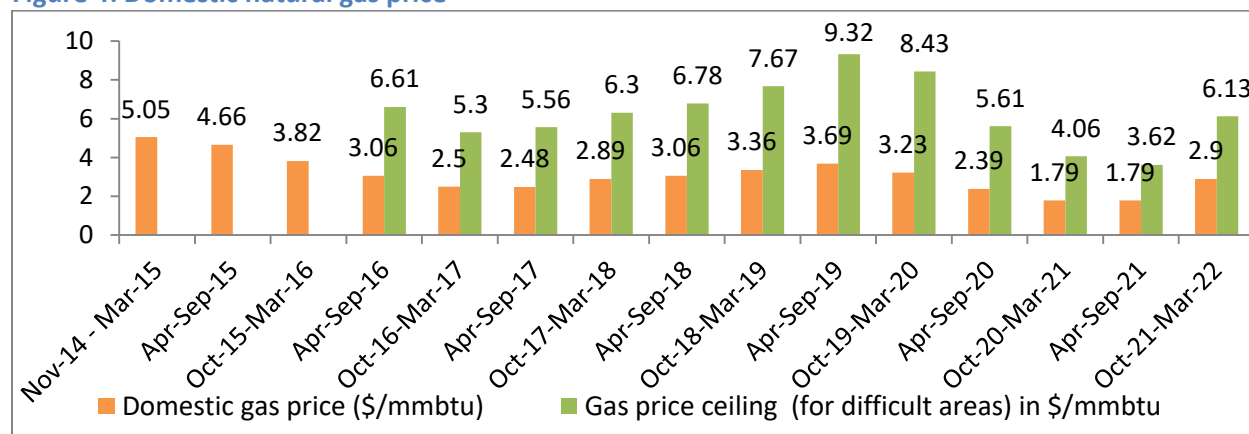
Source: EIA, WORLD BANK

Table 5: Gas price

Natural Gas	Price (\$/MMBTU) in December 2021	MoM (%) change	YoY (%) change
India, Domestic gas price (Dec 21)	2.90	0.00%	62.0%
India, Gas price ceiling – difficult areas (Nov 21)	6.13	0.00%	51.0%
Henry Hub	3.73	-26.1%	46.9%
Natural Gas, Europe	38.03	37.7%	549.0%
Liquefied Natural Gas, Japan	12.77	-16.3%	84.8%

Source: EIA, PPAC, World Bank

Figure 4: Domestic natural gas price



Source: PPAC

## Indian Gas Market

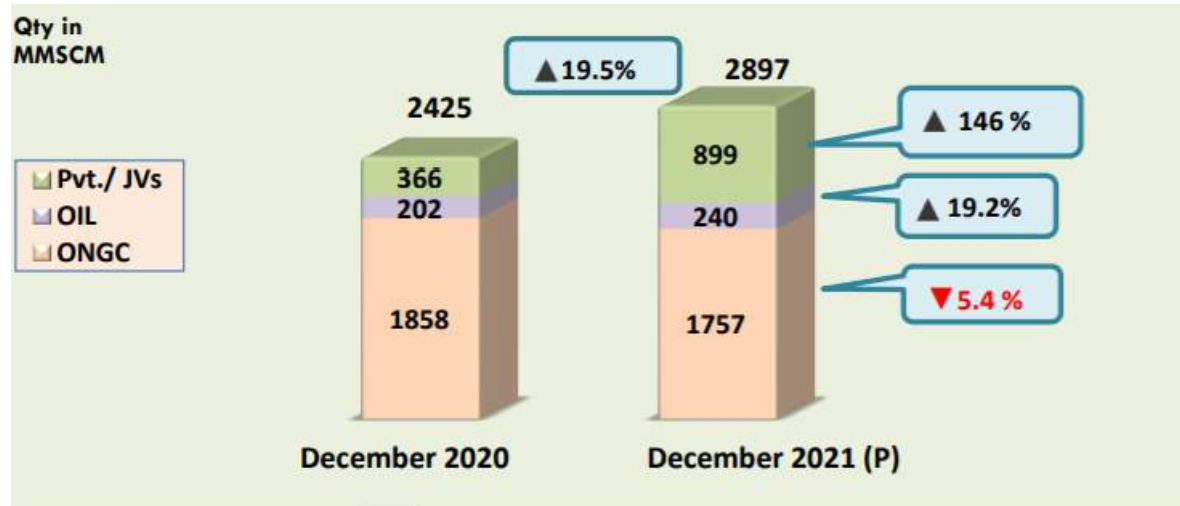
- Gross production of natural gas for the month of December, 2021 was 2897 MMSCM (increase of 19.5 % over the corresponding month of the previous year).
- Total imports of LNG (provisional) during the month of December 2021 were 2543 MMSCM (decrease of 7.5% over the corresponding month of the previous year).
- Natural gas available for sale during December 2021 was 4878 MMSCM increase of 5.9 % over the corresponding month of the previous year).
- Total consumption during December 2021 was 5095 MMSCM (provisional). Major consumers were fertilizer (32%), City Gas Distribution (CGD) (23%), power (12%), refinery (7%) and petrochemicals (5%).
- 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 increase, India's latest gas price revision saw significant increase, thus capturing the international gas price trends. Domestic gas price for Oct 2021 to March 2022 is \$2.9 per MMBTU. 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 Oct 2021 to March 2022 period, the price of gas from such areas has been notified at \$6.13 per MMBTU, 69.34 % up from last revision.

## Monthly Report on Natural gas production, imports and consumption – December 2021

### 1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of December 2021 was 2897 MMSCM (increase of 19.5% over the corresponding month of the previous year 2425 MMSCM).

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

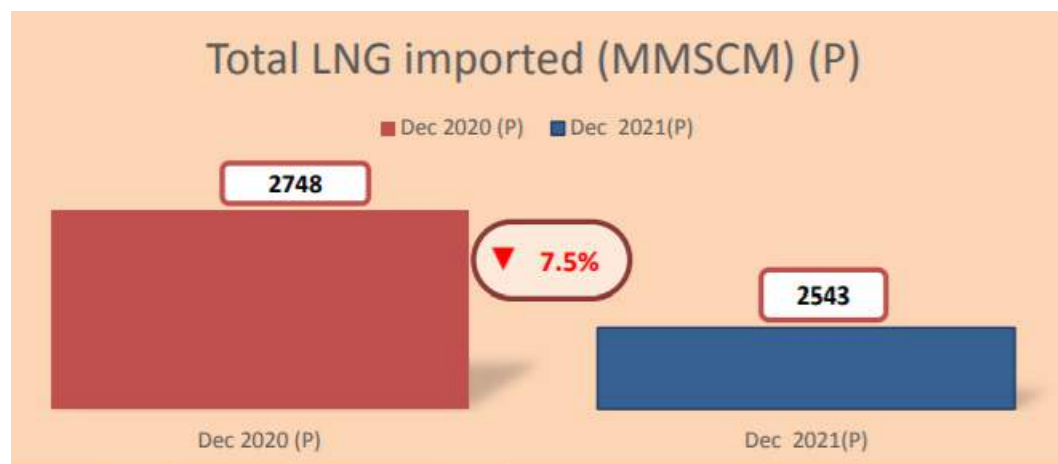


Source: PPAC

### 2. LNG imports:

Total imports of LNG (provisional) during the month of December 2021 were 2543 MMSCM (decrease of 7.5% over the corresponding month of the previous year 2748 (MMSCM)).

Figure 11: LNG imports (Qty in MMSCM)



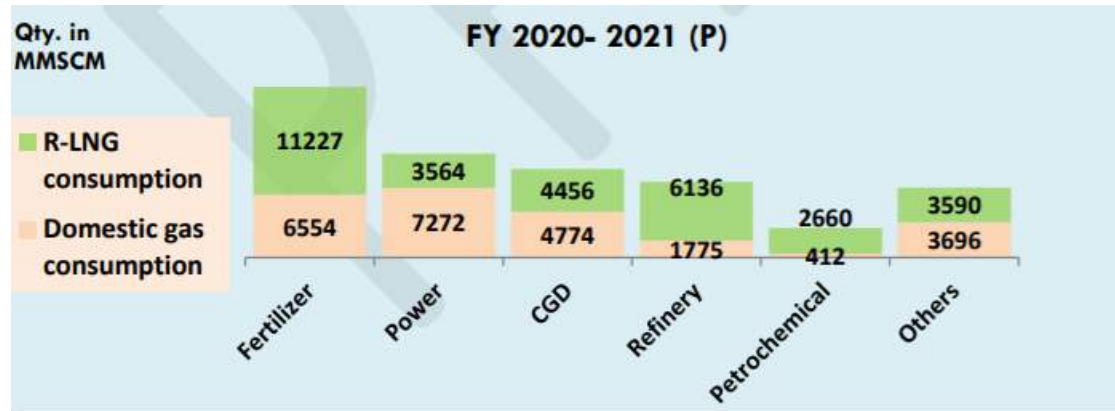
Source: PPAC



### 3. Sectoral Consumption of Natural Gas:

Total consumption of natural gas during December 2021 was 5095 MMSCM. Major consumers were fertilizer, CGD, power, refinery, others and petrochemicals.

Figure 12: Sectoral Consumption of Natural Gas (Qty in MMSCM) in December 2021



Source: PPAC

## Key developments in Oil & Gas sector during December 2021

- **Monthly Production Report for December, 2021**

### 1. Production of Crude Oil

Indigenous crude oil and condensate production during December 2021 was lower by 1.8 % than that of December 2020 as compared to a de-growth of 2.2 % during November 2021. OIL registered a growth of 5.4 % and ONGC registered a degrowth of 2.8 % during December 2021 as compared to December 2020. PSC registered de-growth of 1.9 % during December 2021 as compared to December 2020. De-growth of 2.6 % was registered in the total crude oil and condensate production during April- December 2021 over the corresponding period of the previous year.

### 2. Production of Natural Gas

Gross production of natural gas for the month of December 2021 was 2897 MMSCM which was higher by 19.5% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 25674 MMSCM for the current financial year till December, 2021 was higher by 21.5% compared with the corresponding period of the previous year

### 3. **Crude Oil Processed (Crude Throughput)**

Crude oil processed during December 2021 was 21.5 MMT, which was 2.2 % higher than December 2020 as compared to a growth of 3.4 % during November 2021. Growth of 10.5 % was registered in the total crude oil processing during April-December 2021 over the corresponding period of the previous year.

### 4. **Production of Petroleum Products**

Production of petroleum products saw a growth of 5.9 % during December 2021 over December 2020 as compared to a growth of 4.3 % during November 2021. Growth of 9.4 % was registered in the total POL production during April- December 2021 over the corresponding period of the previous year.

#### **ATF price hiked by 4.2 per cent**

Jet fuel or ATF price was hiked by 4.2 % - the second increase in rates this month warranted by firming international oil prices. Aviation turbine fuel (ATF) price was hiked by Rs 3,232.87 per kilo litre, or 4.25 per cent, to Rs 79,294.91 per kl in the national capital, according to a price notification of state-owned fuel retailers.

#### **Winners of 11<sup>th</sup> CGD auctions**

PNGRB had launched the 11th CGD bidding round in September 2021 for 65 GAs spread across 215 districts in 19 states and one union territory covering 26% of India’s population and 33% of its area.

After the 11th Round of CGD Bidding, Megha Enterprises (MEIL) has won the highest number of bids in the latest round of auctions for city gas distribution (CGD) licenses. Adani Total as well as state-owned Indian Oil Corporation (IOC) and Bharat Petroleum Corporation (BPCL) are the other top winners.

Out of the total bids for 61 GAs in the 11th round of CGD auctions, MEIL won 15 GAs followed by 14 GAs secured by Adani Total — the JV firm of Adani Group and French energy major Total. IOC and BPCL won nine GAs and six GAs, respectively, whereas Navi Mumbai-based Dinesh Engineers won bids for four GAs. Besides IOC and BPCL, state government PSU Assam Gas secured 3 GAs, followed by Maharashtra Natural Gas (2 GAs). That apart, central PSUs Hindustan Petroleum Corporation (HPCL), GAIL, and Indraprastha Gas (IGL) also secured bids for one GAs each.

At present, there are 228 GAs authorized by the regulator across 27 states and union territories covering around 53% of the country’s geographical area and 70 per cent of its population. After bids in the latest rounds are finalized, about 88% of the country's area will be authorized for the development of the CGD Network, providing access to natural gas to about 98% of India's population.

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