FIPI

Federation of Indian Petroleum Industry

Policy & Economic Report
Oil & Gas Market

March
2022

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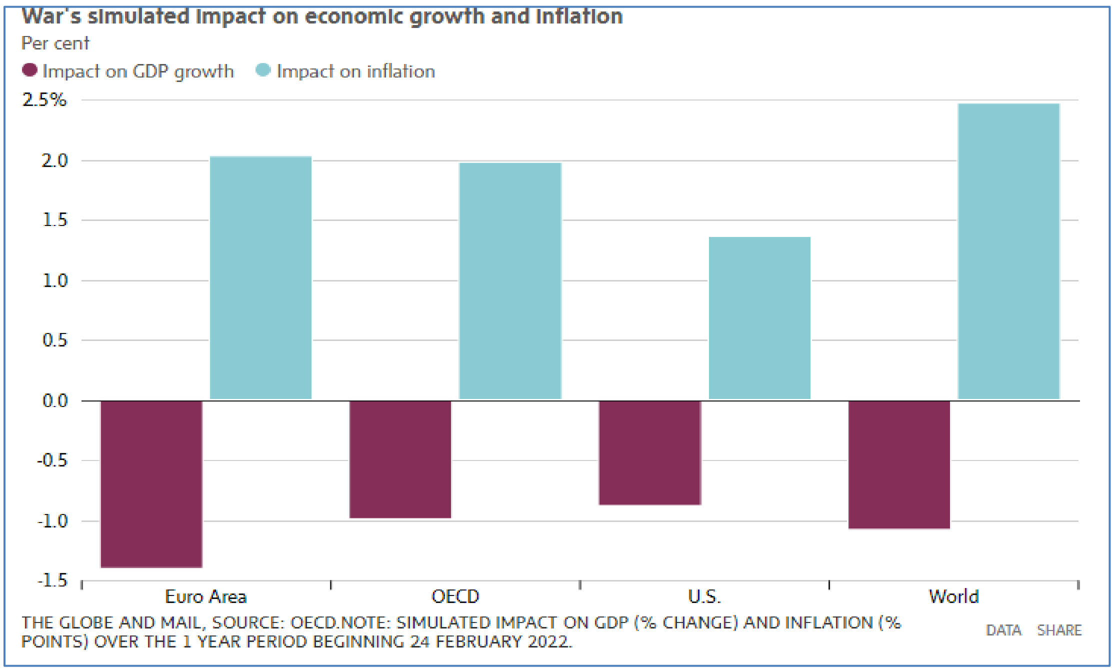
Executive Summary

According to Organization for Economic Co-operation and Development (OECD), the shock from Russia's invasion of Ukraine have soared the prices of energy, food and other commodities and sparked a massive refugee crisis in Europe. The impact of this crisis is expected to reduce global gross domestic product by more than 1 per cent this year, according to the Organization for Economic Co-operation and Development. Growth in the European Union will witness a decline of 1.5 per cent in GDP, while the United States will have an impact of around 0.8 per cent.

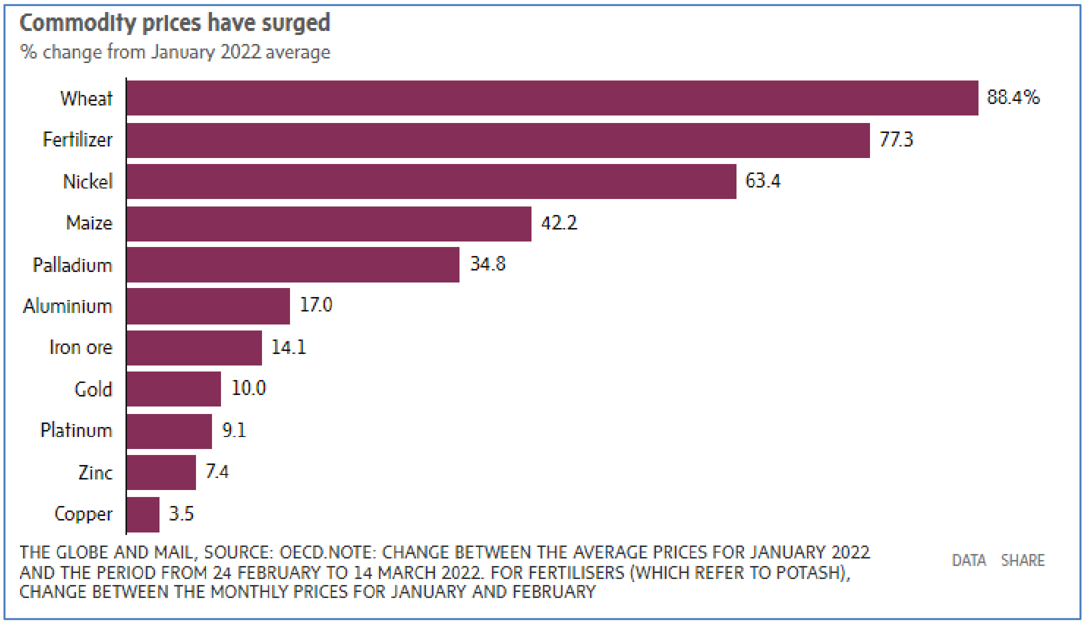
The OECD warned the crisis will drive overall inflation up by nearly 2.5 % points, with prices climbing two percentage points in the Euro area and by just under 1.5 % points in the United States.



The war in Ukraine have resulted in loss of life and human suffering, as well as causing massive damage to Ukraine's physical infrastructure. It has sent a wave of more than 1 million refugees to neighboring countries.

Amid war crisis, many countries are dependent on both Russa and Ukraine for their vital energy, food and other needs. Russia and Ukraine accounts for 17% of natural gas production and 12% of world's oil production. Russia and Ukraine account for 29% of all wheat exports, 75% of sunflower oil exports and 19% of corn exports which is used in food processing. Russia plays an outsized role on global energy markets. It is the world's third largest oil producer and the largest exporter. Its exports of about 5 million barrels a day of crude oil represent roughly 12% of global trade – and its approximately 2.85 million barrels a day of petroleum products represent around 15% of global refined product trade. Around 60% of Russia's oil exports go to Europe and another 20% to China.

The war has disrupted exports of wheat from Ukraine and Russia, which account for 30 per cent of world exports. Energy and commodity prices including wheat and other grains have surged, adding to inflationary pressures from supply chain disruptions and the rebound from the Covid-19 pandemic. According to the OECD analysis, wheat prices have nearly doubled from their average in January, 2022. Russia is also one of the world's largest exporters of fertilizer, and disruptions have sent fertilizer prices skyrocketing by nearly 80 per cent over the same time period.



Further, the energy prices have also been soaring in recent months. The price for crude oil has twice soared as high as $139 a barrel, a level last seen in 2008, the European gas prices have risen 50%-60% soon after Russian invasion of Ukraine.

Source: - Bloomberg, USDA, IMF calculations

The National Statistics Office (NSO) 's second advance estimate for national income projected India's nominal GDP growth for 2021-22 at 19.4 per cent and country's real GDP growth for 2021-22 at 8.9 per cent. The NSO and RBI had earlier pegged the GDP growth at 9.2 per cent for 2021-22.

Where India stands among peers

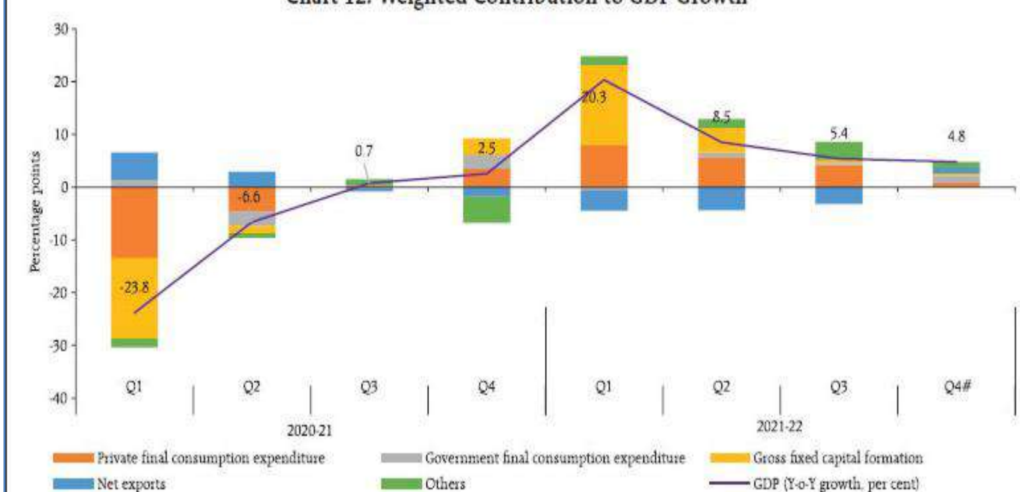
Country-wise Real GDP growth (% YoY)

Country	Q1	Q2	Q3
India	20.3%	8.5%	5.4%
US	0.5%	12.2%	4.9%
China	18.3%	7.9%	4.9%
UK	-5.0%	24.6%	7.0%
Germany	-2.8%	10.4%	2.9%
France	1.7%	19.0%	3.5%
Italy	-0.3%	17.3%	4.0%
Saudi Arabia	-3.2%	1.9%	6.9%
Sweden	0.0%	9.6%	4.7%
Japan	-1.8%	7.3%	1.2%

TOI Source: OECD; SBI Report

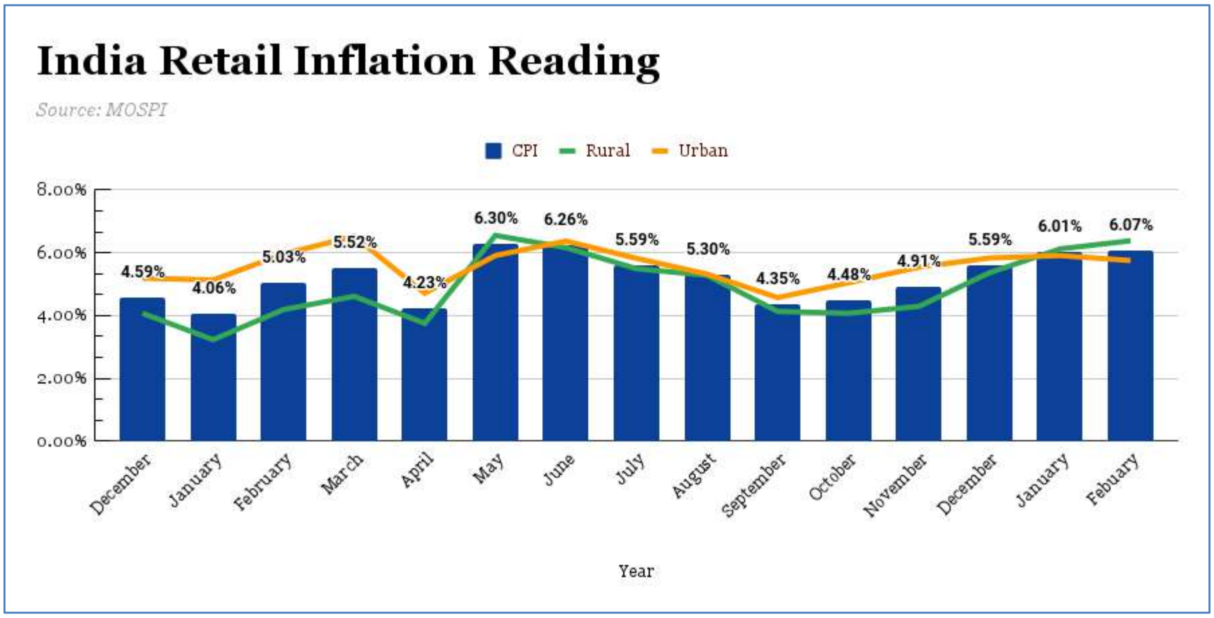
According to NSO estimates, the third quarter GDP growth for the current fiscal stood at 5.4 per cent as compared to 0.7 per cent in same quarter last fiscal, 8.4 per cent growth seen in second quarter this fiscal and 20.1 per cent growth in the first quarter this fiscal. The downsized GDP growth should be seen as a combination of revision to last year's number and impact of omicron wave getting captured.

Chart 12: Weighted Contribution to GDP Growth



#: Implicit growth.
Source: NSO.

The retail inflation rate in India - measured by the Consumer Price Index (CPI)- came in at 6.07% in February 2022, as per data released by the National Statistical Office (NSO). The retail inflation reading has breached the upper limit of the Reserve Bank of India's (RBI) Monetary Policy Committee (MPC), the second time since June 2021.



The CMIE data for first three weeks of March suggest that the quantum of employment continues to remain a challenge, with pressure on the labor market as the unemployment rate rose to 7.25% in the month of March 2022 with urban unemployment rate at 8.10% and the rural unemployment rate is 6.86% in March 2022.

Oil has experienced one of its most tumultuous trading periods ever as the war in Ukraine and the ensuing sanctions against Russia drove wild price fluctuations that pushed volatility to historic levels. Brent prices soared to a 14-year high of $140 a barrel in March 2022, as US, UK and many allied countries banned Russian oil and gas imports. It was towards end of March 2022 that prices swiftly fall back to $100/bbl. Brent crude touched a high of $112.78 while U.S. West Texas Intermediate (WTI) jumped to $105.53 a barrel, towards end of March 2022.

Non-OPEC liquids supply growth remained broadly unchanged from last month's assessment at around 0.6 mb/d y-o-y. Total US liquid output increased by 0.15 mb/d, y-o-y. Oil supply in 4Q21 is estimated to have declined in Canada and Australia, while there have been some minor upward revisions in other countries. The forecast for non-OPEC supply for 2022 remains at 3.0 mb/d, y-o-y. The main drivers of liquids supply growth are expected to be the US, followed by Canada, Brazil, Kazakhstan, Guyana and Norway. OPEC NGLs are forecast to grow by 0.1 mb/d both in 2021 and 2022 to average 5.1 mb/d and 5.3 mb/d, respectively. In February, OPEC crude oil production increased by 0.44 mb/d m-o-m, to average 28.47 mb/d.

As crude oil prices soar amid severe supply concerns, the 31 member-countries of the governing board of the International Energy Agency (IEA) have agreed to release 60 million barrels of oil from their emergency reserves. IEA members hold emergency stockpiles of 1.5 billion barrels. The announcement of an initial release of 60 million barrels, or 4% of those stockpiles, is equivalent to 2 million barrels a day for 30 days. Further, European countries plan to reduce its reliance on Russian natural gas and would focus on other suppliers, including via LNG, and to continue to pursue a well-managed acceleration of clean energy transitions.

Natural gas spot price at the U.S. benchmark Henry Hub is averaging at $ 4.82/MMBtu and prices are expected to be volatile amid highly variable winter weather forecast. The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe has been trading at all-time high levels. The TTF price averaged $27.23 per MMBtu. Gas prices are also being driven by fewer LNG tanker deliveries to Europe as a result of increased demand from Asia. Further, gas prices are expected to remain high driven by greater demand from the post-pandemic recovery, low storage capacity, and tensions in Ukraine.

Economy in Focus

1. A snapshot of the global economy

<u>Global economic growth</u>

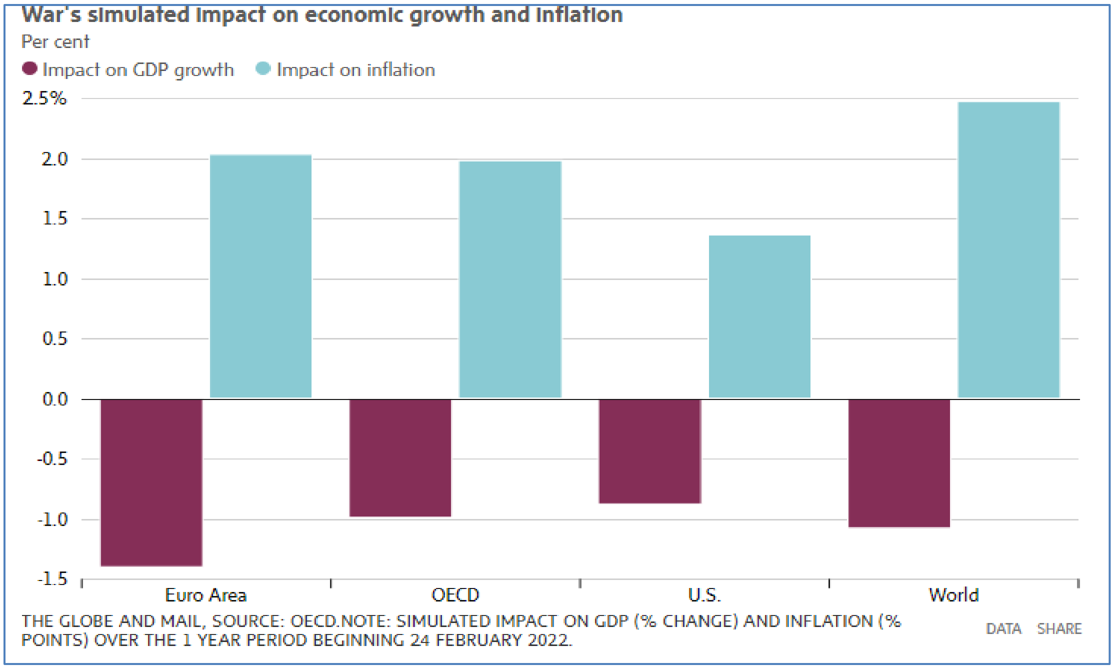
According to Organization for Economic Co-operation and Development (OECD), the shock from Russia's invasion of Ukraine have soared the prices of energy, food and other commodities and sparked a massive refugee crisis in Europe. The impact of this crisis is expected to reduce global gross domestic product by more than 1 per cent this year, according to the Organization for Economic Co-operation and Development. Growth in the European Union will witness a decline of 1.5 per cent in GDP, while the United States will have an impact of around 0.8 per cent.

Despite the above, at the global level, the reduced pandemic-related restrictions and healthy demand side consumption will underpin growth, amid Covid-19 concerns, inflation and supply chain challenges that continue to grow.

- In the U.S., the economy is moving into a late-cycle expansion as the labour market approaches full employment, growth rates decelerate from 2021 peaks, policy support subsides and reopening momentum abates, further, Canada, Australia and Europe are also following a similar path. In these regions, declining Covid cases after omicron, high vaccination rates and excess savings accumulated during the past two years support a rebound in activity.
- For emerging markets, the recovery is less synchronized and more fragile. The pace of recovery in these markets will depend on each country's inherent economic strengths and weaknesses. China's strict Covid-19 measures, decelerating industrial activity, property sector slowdown and ongoing regulatory actions are risks to the economy.

- In Mexico, Brazil and Argentina, recoveries are losing steam amid elevated inflation pressures.
- While central banks in several emerging markets are already hiking interest rates, the strong recovery and surging inflation will have advanced economies raising rates soon.

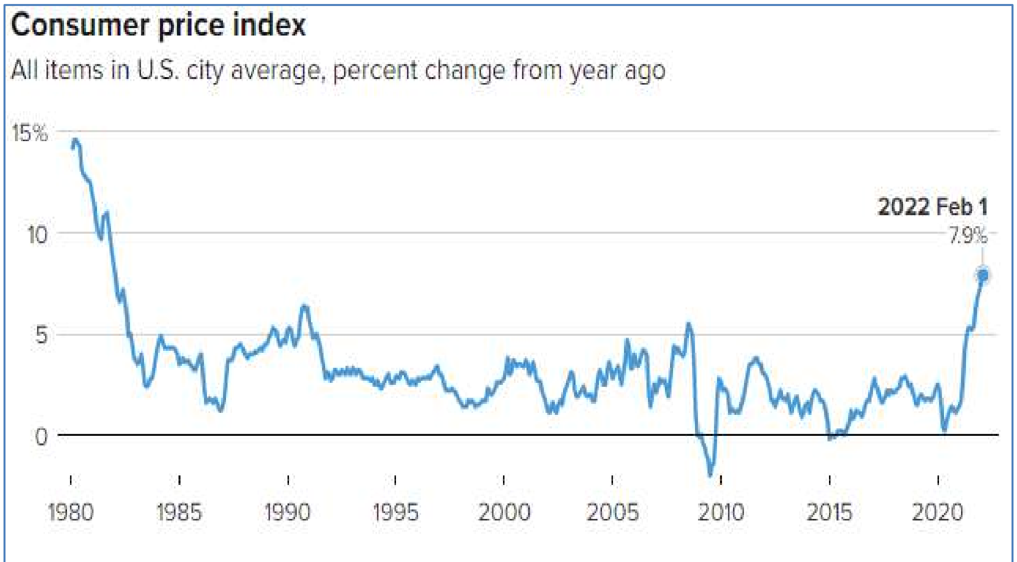
The OECD warned the crisis will drive overall inflation up by nearly 2.5 % points, with prices climbing two percentage points in the Euro area and by just under 1.5 % points in the United States.



Global inflation

IHS Markit has forecasted a marked rise in inflation between 2021 and 2022.

- Global consumer price inflation reached 5.2% year on year in November and December 2021, its highest pace since September 2008.
- IHS Markit predicted worldwide inflation will likely remain near 5.0% in early 2022 before gradually easing in response to declines in industrial and agricultural commodity prices.
- Markit also estimated global consumer price inflation to have picked up from 2.2 percent in 2020 to 3.8 percent in 2021 and expected it to average 4.1 percent in 2022 before subsiding to 2.8 percent in 2023.
- IMF has explained that rising energy prices and supply disruptions have resulted in higher and more broad-based inflation, notably in the United States and many emerging market and developing economies.
- In US, prices are up 7.9% year over year, according to the consumer price index, and gasoline prices have risen 38% in the 12-month period.



Note: Data is seasonally adjusted
Source: Board of Governors of the Federal Reserve System (US), Federal Funds Effective Rate retrieved from Federal Reserve Bank of St. Louis

- The eurozone has also recorded its highest inflation rates on record, with 5% posted in December and 5.1% registered for January. Surging energy costs, particularly natural-gas prices, were considered to be the chief drivers.
- The bottlenecks in terms of worker shortages are expected to continue into 2022.

Central banks stance on rising global inflation

The IMF also predicted food prices rising at a pace of about 4.5 % before they reverse course in 2023. Monetary policy in many countries will need to continue on a tightening path to curb inflation pressures.

- U.S. Federal Reserve raised its benchmark short-term rate to 0.25% to tame the worst inflation since the early 1980s.
- Mexico's central bank announced the half-point increase in its key policy rates to curb inflation.
- The Bank of England raised its key interest rate for the third time since December and boosted its key rate to 0.75%.
- The Bank of Canada raised its benchmark interest rate by a quarter to 0.50% for the first time in over 3 years and expects more rate increases are necessary to curb inflationary pressures
- The outlier among major central banks is the Bank of Japan. Though inflation pressures continue to persist, the recovery from the pandemic is less advanced, and policy tightening is not imminent.

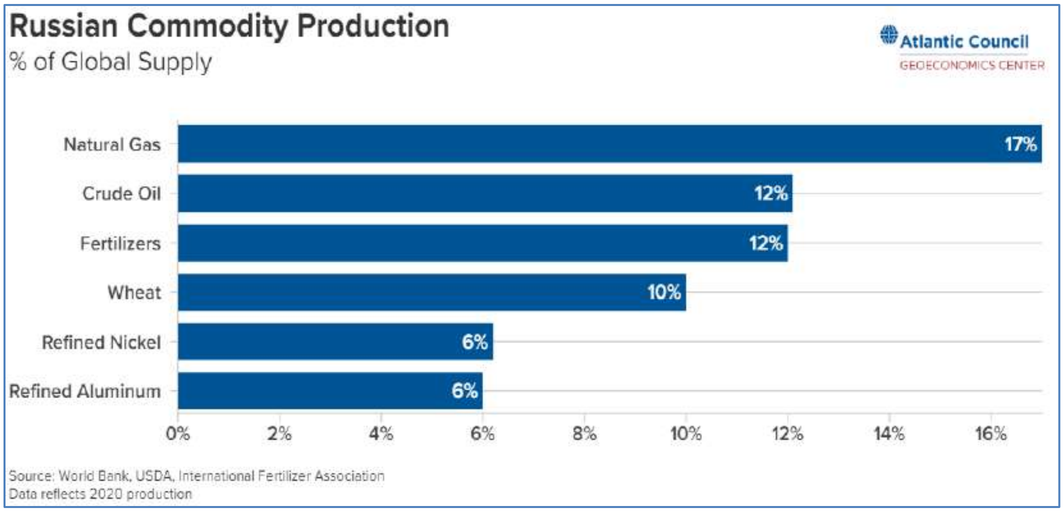
Global output

Factories from Australia to Europe are witnessing surging costs jump as Russia's war in Ukraine begins and thus impose pressures on oil commodity markets and trade due to sanctions imposed on Russia by US and European countries. The supply side bottlenecks are also adding further pressure on the output produced by lengthening the lead cycle time.

Russia - Ukraine war crisis and its implications on key economic indicators

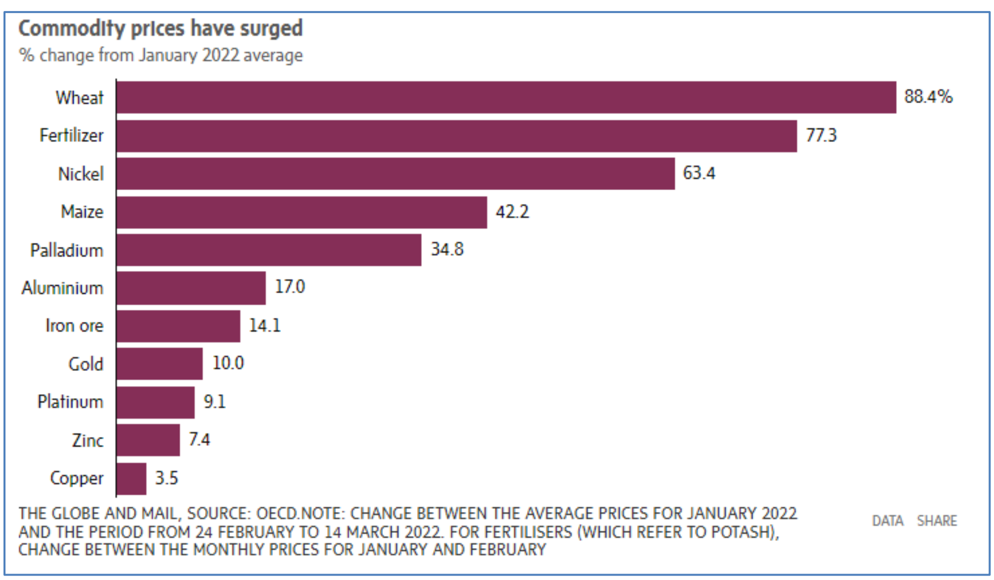
The war in Ukraine have resulted in loss of life and human suffering, as well as causing massive damage to Ukraine's physical infrastructure. It has sent a wave of more than 1 million refugees to neighboring countries. Amid war crisis, many countries are dependent on both Russa and Ukraine for their vital energy, food and other needs. According to bp and International Food Policy Research Institute,

- Russia exports 5 mn bbl of oil a day.
- Russia and Ukraine accounts for 17% of natural gas production and 12% of world's oil production.
- Russia and Ukraine account for 29% of all wheat exports, 75% of sunflower oil exports and 19% of corn exports which is used in food processing.
- Russia accounts for 15% of global trade in nitrogenous fertilizers and 17% of global potash fertilizer exports.
- Russia plays an outsized role on global energy markets. It is the world's third largest oil producer and the largest exporter. Its exports of about 5 million barrels a day of crude oil represent roughly 12% of global trade – and its approximately 2.85 million barrels a day of petroleum products represent around 15% of global refined product trade. Around 60% of Russia's oil exports go to Europe and another 20% to China.



The war has resulted in following consequences: -

- Unprecedented sanctions have been announced on Russia from the US, the EU, and the allied countries. The war has resulted in ban of oil, gas, and coal imports from Russia by the Unites States.
- International sanctions on Russia's banking system and the exclusion of a number of banks from SWIFT have significantly disrupted Russia's ability to receive payments for exports, pay for imports and engage in cross-border financial transactions.
- Further, the war has also disrupted exports of wheat from Ukraine and Russia, which account for 30 per cent of world exports. Energy and commodity prices including wheat and other grains have surged, adding to inflationary pressures from supply chain disruptions and the rebound from the Covid-19 pandemic.
- According to the OECD analysis, wheat prices have nearly doubled from their average in January, 2022. Russia is one of the world's largest exporters of fertilizer, and disruptions have sent fertilizer prices skyrocketing by nearly 80 per cent over the same time period.



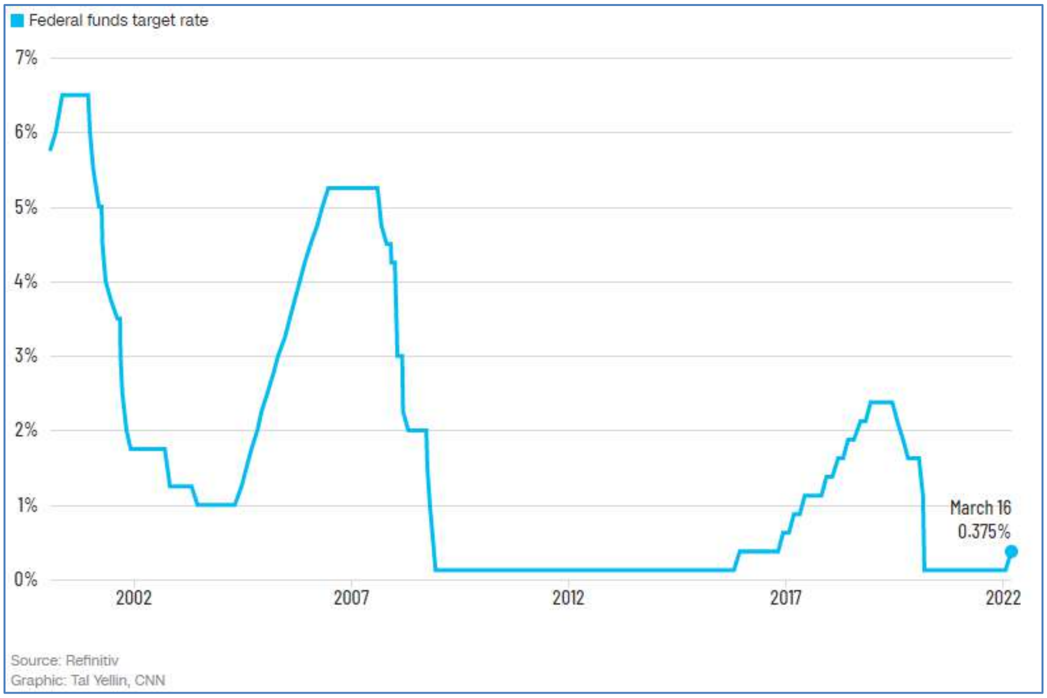
- Further, the energy prices have also been soaring in recent months. The price for crude oil has twice soared as high as $139 a barrel, a level last seen in 2008, the European gas prices have risen 50%-60% soon after Russian invasion of Ukraine.

Source: - Bloomberg, USDA, IMF calculations

- Thus, steeper price increases for food and fuel may spur a greater risk of unrest in some regions, from Sub-Saharan Africa, Latin America and Central Asia, while food insecurity is likely to further increase in parts of Africa and the Middle East.
- Supply chain disruptions in these materials will exacerbate the pressure on the semiconductor industry, leading to shortages and higher prices in a wide spectrum of products ranging from home appliances to cars (including used cars), electronic gadgets, and industrial machinery. Specifically, over the past two years, chip shortages have led to increasing prices for new and used vehicles, which has been one of the main contributors to high inflation rates in the U.S. economy.

2. US Federal Reserve increases interest rates by 0.25%; first hike in three years

With inflation surging at 7.9 % in February and personal consumption expenditures, up 5.2% from a year ago, the United States Federal Reserve approved its first interest rate hike 0.25 percent or 25 basis points in over three years. The federal funds rate now stands at 0.25-0.5%. The United States Federal Reserve also penciled in rate hikes at each of the six remaining meetings, adding up to a consolidated rate of 1.9 percent by the end of 2022. The committee sees three more hikes in 2023 and then subsequently none of the following year. Fed officials also forecast three additional hikes in 2023, boosting its benchmark rate to 2.8 percent.



Federal Reserve commented that spill overs from the Russia-Ukraine conflict will hit the US economy and are putting upward pressure on inflation. The central bankers have revised up their inflation predictions, expecting the personal consumption expenditures price index excluding food and energy to reflect 4.1% growth this year, compared with the 2.7% projection in December 2021. Core PCE is expected to be 2.7% and 2.3%, respectively, in the next two years before settling to 2% over the longer term. US economic growth was sliced to 2.8% this year, from the 4% expected in December and the unemployment rate is expected at 3.5% in end of this year.

3. IMF Executive Board Approves US$ 1.4 Billion in Emergency Financing Support to Ukraine

The International Monetary Fund (IMF) approved disbursement of US$1.4 billion (SDR 1,005.9 million) to Ukraine under the Rapid Financing Instrument (RFI) to help meet urgent financing needs and mitigate the economic impact of the war.

The financial terms of the RFI are similar to the terms of the Stand-By Arrangement and the funds received shall be paid in 3.25-5 years. This disbursement under the RFI is equivalent to 50 % of Ukraine's quota in the IMF and will help meet urgent balance of payment needs arising from the impacts of the ongoing war. The Ukrainian authorities have expressed their intent to work with the IMF to design an appropriate economic program aimed at rehabilitation and growth. The authorities intend to remain in close consultation with staff as they continue to design and implement effective crisis mitigation measures.

The emergency policy response of the Ukrainian authorities has been robust. Administrative and capital controls have been introduced to preserve the availability of foreign exchange reserves and reduce uncertainty regarding the exchange rate. To further support financial stability, the National Bank of

Ukraine has established a new liquidity facility and introduced regulatory forbearance measures. While cash withdrawal limits have been imposed, cashless transactions have not been limited.

The support extended by IMF is expected to be instrumental in aiding the large-scale mobilization of additional concessional financing that will be required to help fill the financing gap and mitigate the economic impacts of the war.

4. G20’s US$14-trillion economic stimulus reneges on emissions pledges

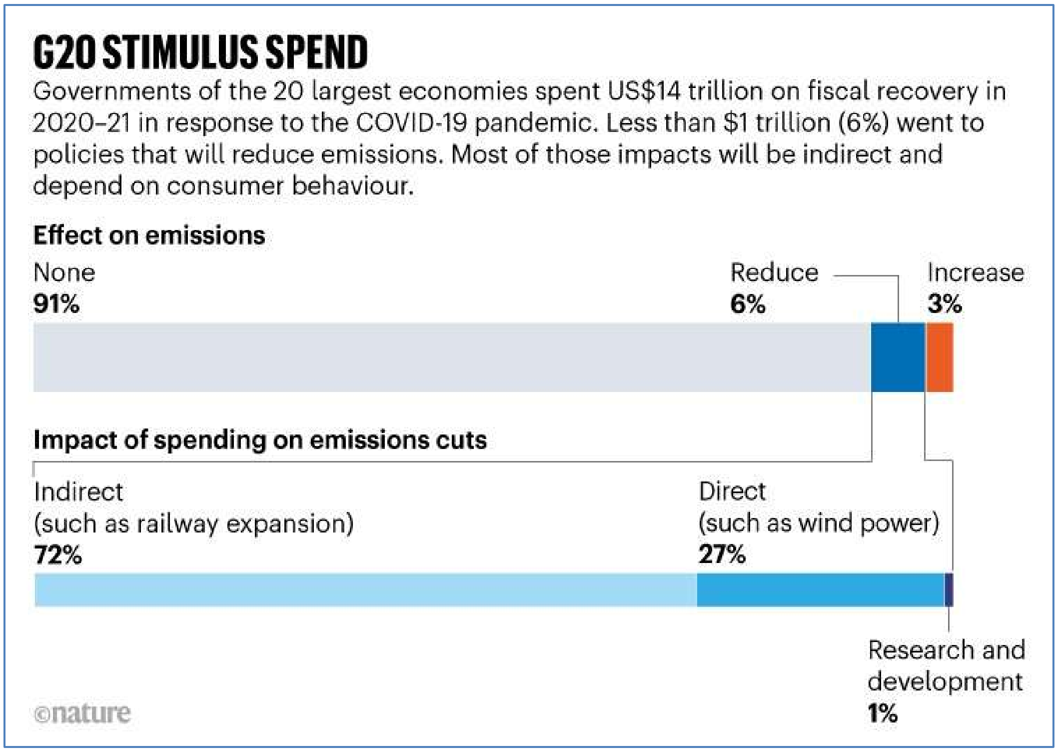
Governments have spent unprecedented amounts to escape the recession caused by the COVID-19 pandemic. In 2020 and 2021, the G20 group of the 20 largest economies spent at least US$14 trillion on sectors such as health-care systems, wages and welfare.

It has been analyzed that only 6% of total stimulus spending (or about $860 billion) has been allocated to areas that will cut emissions, including electrifying vehicles, making buildings more energy efficient and installing renewables. Further 3% of stimulus funding has targeted activities that are likely to increase global emissions, such as subsidizing the coal industry.

Also, it has been cited those current green investments are proportionately less than those that followed previous recessions. After the global financial crisis in 2007–09, 16% of global stimulus spending was directed at emissions cuts (or about $520 billion of $3.25 trillion in total). If a similar share had been committed presently, the total would be $2.2 trillion.

It is thus important for nations to believe that long-term investments in infrastructure, transport electrification, building efficiency and clean-energy technologies will also open up new sources of economic growth. For instance, in 2021, the global market for renewable-energy technologies including wind and solar reached $366 billion. Jobs were also created, in constructing, retrofitting, installing and maintaining renewables. In 2020, the renewable-energy industry employed almost 900,000 workers in the United States and more than 12 million people globally thus enhancing employment opportunities

It is estimated that of the $14 trillion G20 governments have pledged to fiscal stimulus since the beginning of the pandemic, less than $1 trillion was allocated to recovery programmes that have direct or indirect climate objectives. Of this amount, 27% targets measures will cut emissions directly i.e., through grants to install insulation and energy-efficient heating systems in homes, as in the United Kingdom and Germany.



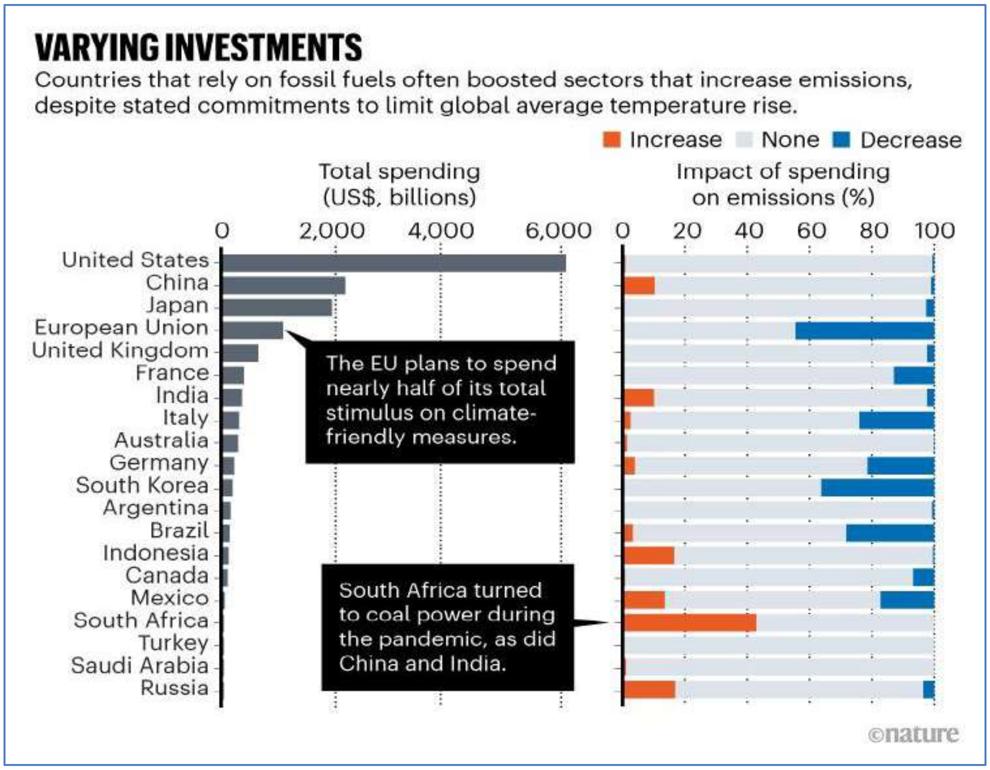
Source: Analysis by J. Nahm et al.

Most of the rest of the allocation (72%) has indirect impacts. These hinge on consumer behavior and will require more regulatory and financial incentives. Examples include investments in Germany to construct electric-vehicle charging stations as part of its Coronavirus Recovery Package.

The remaining 1% ($10.6 billion) went to research and development (R&D). Such efforts might yield technological breakthroughs in the future, but are unlikely to affect global emissions before 2030. Examples include $2.2 billion in South Korea for green innovation research (such as on carbon capture and renewables), and a $216-million boost to hydrogen-power research in Australia.

Leaders and laggards

The European Union and South Korea led the pack towards investment related to climate change. Each dedicated more than 30% of their COVID-19 fiscal stimulus to emissions-reducing measures — even though each had already invested nearly 60% and nearly 70% of their 2009 stimulus, respectively, in such projects. Brazil, Germany and Italy invested more than 20%, Mexico and France over 10%. Germany's budget will promote wind- and solar-energy deployment, energy-efficient buildings, electric and hydrogen-powered vehicles and more-efficient buses and aeroplanes.



At the other extreme, economies that are laggards are those dependent on fossil fuels, such as India, China and South Africa. China cut electricity prices by 5% in 2020 to ease financial stresses. It asked coal mines to increase production to help to stabilize prices. India delayed the deadline for coal power plants to implement air-pollution control measures. South Africa earmarked $11.4 billion in guarantees to buy electricity from power plants (largely coal) in the face of plummeting demand, while decreasing purchases of wind power.

The middle of the pack holds the most surprises. The United States, Japan, Canada and the United Kingdom each committed less than 10% of recovery funds to emissions-reducing causes. These small investments stand in stark contrast to their official commitments to the Paris climate goals.

5. Global economic growth for 2022 projected down to 2.6% due to Ukraine war- UNCTAD

The UN Conference on Trade and Development (UNCTAD) has cut its global economic growth projection for 2022 to 2.6 per cent from 3.6 per cent due to the ongoing Ukraine-Russia conflict.

According to UNCTAD, Russia economy is expected to experience a deep recession in 2022, and parts of Western Europe and Central, South and Southeast Asia will see significant slowdowns in growth.

The ongoing conflict in Ukraine is likely to reinforce the monetary tightening trend in advanced countries due to inflationary pressures, with expenditure cuts also anticipated in upcoming budgets.

A combination of weakening global demand, insufficient policy coordination at the international level and elevated debt levels from the pandemic will generate financial shockwaves that lead to recession for many economies. Soaring food and fuel prices will have an immediate effect on the most vulnerable in developing countries.

The higher prices marked by reliance on food and fuel imports risk nations livelihoods, discourage investment and raise the widening trade deficits.

6. Moody forecast G20 GDP growth forecast 3.6% for the year 2022

Moody expects the G-20 economies to expand 3.6% collectively in 2022, compared with the 4.3% growth forecast earlier in February. It further expects growth to slow to 3.0% in 2023. Among the advanced economies in G20, it expects an expansion of 3.2% in 2022 and the G-20 emerging market countries to grow 4.2% in 2022, down from its forecasts of 3.9% and 4.9%, respectively, before the invasion of Ukraine.

Moody's estimated that Russia is the only G-20 economy that may contract this year and forecasts that its economy will shrink 7% this year and 3% in 2023, down from projected growth of 2.0% and 1.5%, respectively, before the invasion of Ukraine.

Further Moody added that downside risks that could shift G20 GDP into recession include surging oil prices and a widening of the conflict to encompass other countries. The current crisis also signals further pressure on central banks to tighten monetary policy as inflation continues to gain pace, pointing to scope for interest rate hikes to be introduced earlier than expected. On the inflation front, it has opined that among the G-20 emerging market countries, inflation will rise 3.5% on average above its February expectations. It may be noted that the G20 emerging market countries include Argentina, Brazil, China, India, Indonesia, Mexico, Russia, South Africa, and Turkey.

The key three channels that could be affected by the ongoing geopolitical conflict are commodity and food price shocks, financial repercussions from the sanctions, and security challenges in a scenario of an escalating military conflict.

7. India

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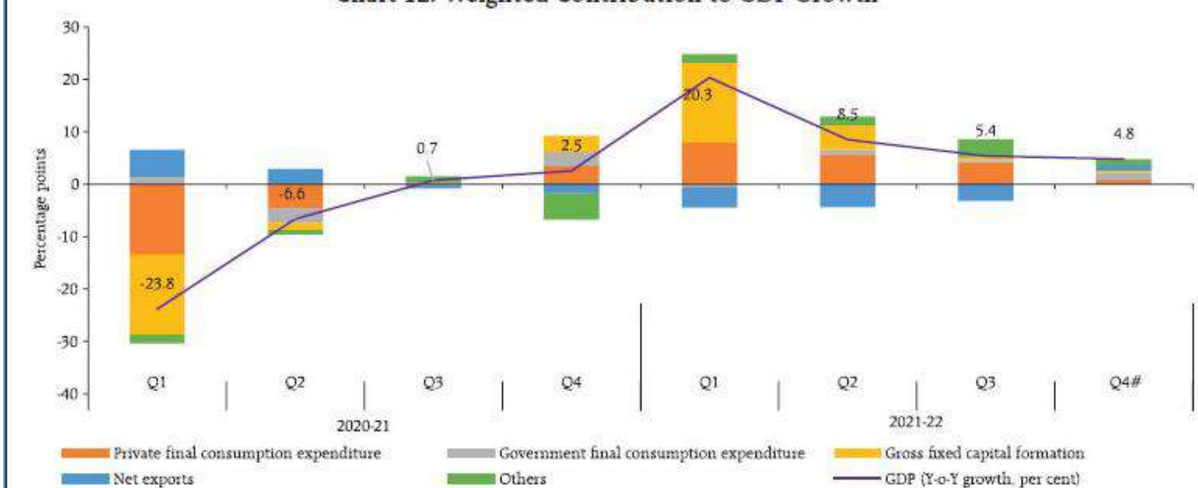


#: Implicit growth.
Source: NSO.

The salient trends reflecting Q3 position are: -

- Government final consumption expenditure rose 3.4% in the third quarter over a year earlier.
- Investments, as reflected by gross fixed capital formation, grew 2% during the October-December period.
- Private consumption, reflected in private final consumption expenditure, grew 7% in Q3FY22.
- With the recent economic scenario, the downside is seen in manufacturing output and some impact of omicron variant in contact-intensive sectors. Manufacturing showed a low growth in Q3 of just 0.2 per cent.
- Agriculture growth slowed to 2.6% in the third quarter compared to a 3.7% expansion in Q2.
- Among services, the government sector posted double-digit growth for the second straight quarter at 16.8% in the quarter ended December, compared to 19.5% in Q2. Trade, transport, and hotels sector saw 6.1% growth compared to 9.5% growth in the previous quarter. The financial and real estate sectors saw growth decelerate to 4.6% in the third quarter from 6.2% in the preceding three months.
- Rising crude oil prices and supply disruptions on account of geopolitical situation could further slowdown the economy posing risks to household spending and private investments.

Index of Core sector improves

- The eight core industries' output grew 3.7 per cent in January 2022, higher than 1.3 per cent in same month last year.
- The core industries' output for April-January 2022 grew 11.6 per cent as compared to contraction of 8.6 per cent in the same period in the previous fiscal.
- In January 2022, six of the eight core industries recorded output growth on a year-on-year basis. Only crude oil and fertilizers recorded contraction at 2.4 per cent and 2 per cent respectively.
- The sectors that saw positive growth are coal (8.2 per cent); natural gas (11.7 per cent); refinery products (3.7 per cent): steel (2.8 per cent); cement (13.6 per cent) and electricity (0.5 per cent).

India inflation

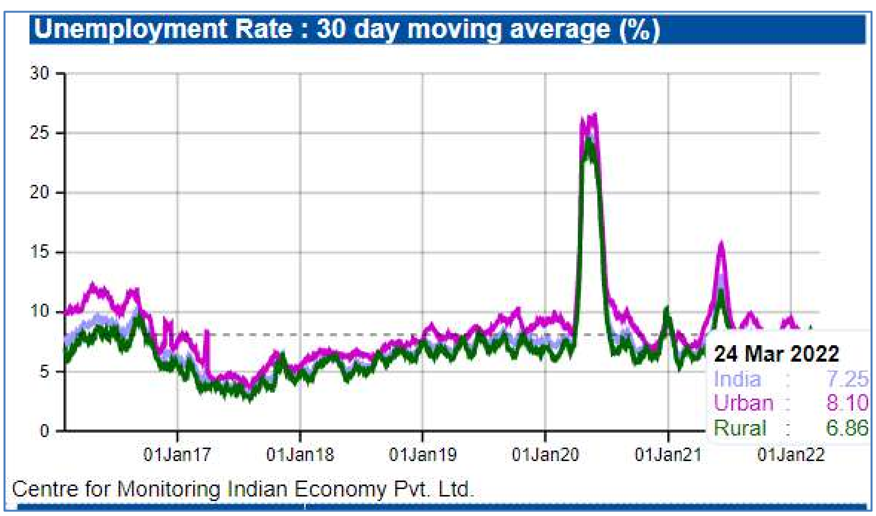
The retail inflation rate in India - measured by the Consumer Price Index (CPI)- came in at 6.07% in February 2022, as per data released by the National Statistical Office (NSO). The retail inflation reading has breached the upper limit of the Reserve Bank of India's (RBI) Monetary Policy Committee (MPC), the second time since June 2021.

Urban inflation in February moderated to 5.75%, down from 5.91% in January while rural inflation came in 6.38%, as against 6.12% seen in January. The wholesale inflation measured the Wholesale Price Index (WPI), spiked to 13.11% year-on-year in February. The main reasons for surging inflation levels are cited as geopolitical tensions leading to disruptions in global supply chains, rising freight costs and an increase in international commodity prices. Also, higher fuel prices, which were up 31.50 per cent on the year, versus 32.27 per cent in January were also the main reason for rising price levels.

Monetary policy continues to be in accommodative mode and is supportive of growth for future.

Unemployment

The CMIE data for first three weeks of March suggest that the quantum of employment continues to remain a challenge, with pressure on the labor market as the unemployment rate rose to 7.25% in the month of March 2022 with urban unemployment rate at 8.10% and the rural unemployment rate is 6.86% in March 2022.



India achieves USD 400 bn goods exports target for 2021-22

India has achieved its goods export target of USD 400 billion for 2021-22, nine days ahead of schedule. Exports during the fiscal have registered a 37 per cent jump over the previous fiscal. The exports in 2020-21 stood at USD 292 billion. During the current financial year, on an average, the daily exports amounted to approx. USD 46 million per hour, USD 1 billion per day and USD 33 billion every month thus supporting a key milestone in India's Aatmanirbhar Bharat journey.

India's exports grew on account of healthy growth in sectors like engineering, petroleum and chemicals, even as the trade deficit widened to USD 20.88 billion, according to data released by the commerce ministry. Imports during the month also jumped 36 per cent to USD 55.45 billion, with inbound shipments of petroleum and crude oil surging 69 per cent to USD 15.28 billion. Trade deficit stood at USD 13.12 billion in February 2022.

India's growth cut amid IMF warning

The spike in global energy prices would have a negative impact on India's economy according to IMF. The IMF managing director Kristalina Georgieva said since India fulfils the majority of its energy requirements through imports, the rise in prices will have an adverse effect on Indian economy.

IMF's first deputy managing director Gita Gopinath observed that the war has impacted economies globally, including that of India. She explained that war has had an impact on the purchasing power of Indian households since the country relies largely on energy imports and the prices are going up. She mentioned that with rising headline inflation numbers, inflation in India is close to around six per cent, which is the upper end of the inflation band for the Reserve Bank of India. She further pointed out that spiking commodity prices, especially of crude oil, will have a bearing on India's macroeconomic fundamentals, including the current account deficit and inflation.

Morgan Stanley cuts India GDP growth forecast to 7.9% for FY23

Morgan Stanley has cut India's GDP forecast for the fiscal year beginning April 1 by 50 basis points to 7.9 per cent, raised retail inflation projection to 6 per cent and expects current account deficit to widen to 3 per cent of GDP.

India is affected through three key channels -- higher prices for oil and other commodities; trade, and tighter financial conditions, influencing business/investment sentiment. Building in higher oil prices, the agency trims F23 GDP growth forecast 50bps, to 7.9 per cent, with higher crude prices resulting in inflationary pressure and downplaying economic growth of the country. As such, the agency does not expect fiscal or monetary policy to tighten to manage macro stability risks however, it expects a repo rate hike in the June meeting of RBI's Monetary Policy Committee and expects the April policy to mark the process of policy normalization with a reverse repo rate hike.

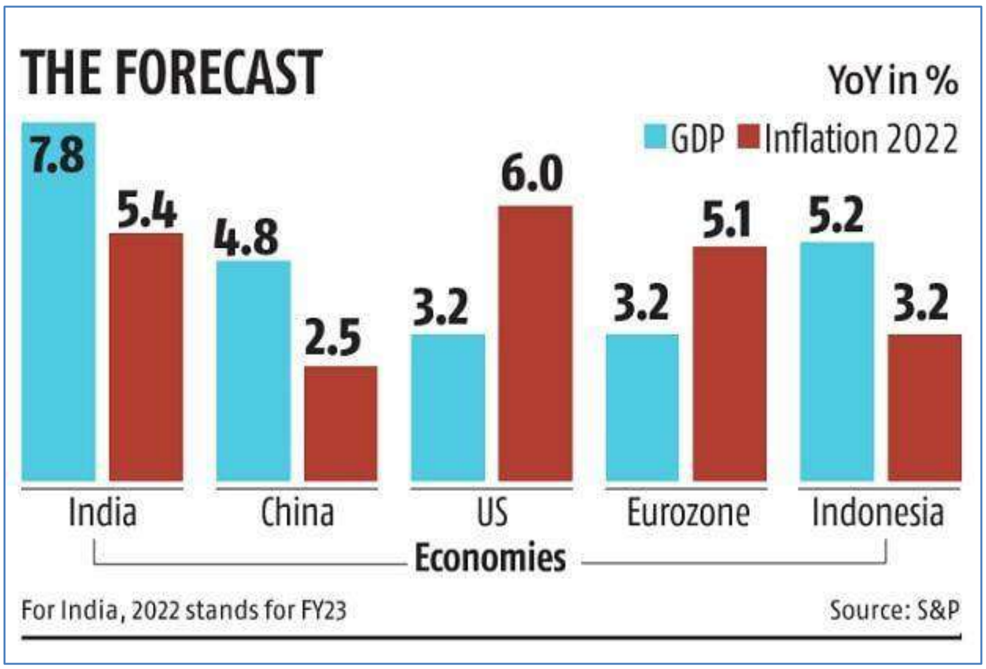
Further, the report also estimated risks of 0.5 per cent of GDP to the fiscal deficit target of 6.4 per cent of GDP for FY23 (April 2022 to March 2023).

Economic growth at 7.8% : S&P Global Ratings

According to S&P Global Ratings rising oil prices may dampen economic growth and cause a sizeable current account deficit (CAD) in large energy-importing countries like India.

The ratings agency retained India's economic growth at 7.8 per cent for FY23. It said that high inflation, weaker demand and increased uncertainty arising from the Russia-Ukraine conflict may slow the economic and fiscal recoveries for many countries.

A widening of the conflict or further sanctions could push investors, involving capital outflow from emerging markets, hitting assets and currencies, it cautioned. Higher consumer price index (CPI) inflation is expected to strain the monetary policy in India, South Korea, the Philippines, Singapore, and New Zealand, where CPI inflation is preoccupying central banks, according to the rating agency.



Further, India Ratings believes that despite the adverse effects of the conflict, merchandise imports are likely to recover further. This is due to the normalizing domestic economy with robust demand consumption, higher commodity prices and depreciation of rupee pushing the merchandise imports bill to over $166 billion in Q4 of FY22.

India Ratings estimates the FY22 merchandise import bill to be at an all-time high of over $606 billion. However, merchandise exports may be constrained to $101.3 billion in Q4 of FY22, taking the merchandise exports to $406 billion in FY22. As a result, merchandise trade deficit is likely to come at $200 billion in FY22. Further the current account deficit is expected at over $25 billion in Q4 of FY22, it said.

EMBARGO

An embargo is a government order that restricts commerce with a specified country or the exchange of specific goods. An embargo is usually created as a result of unfavorable political or economic circumstances between nations. The decisions on trade embargoes and other economic sanctions made by the United States are often based on mandates by the United Nations (UN). Allied countries frequently band together, making joint agreements to restrict trade with specific nations. This is often done to force humanitarian changes or reduce perceived threats to international peace.

There are several different types of embargoes.

- A trade embargo refers to banning exports or imports to or from one or more countries.
- Strategic embargoes protect animals, people, and plants.
- A military embargo prevents the exchange of military goods with a country,
- An oil embargo prohibits only the trade of oil.

Consequences of an Embargo

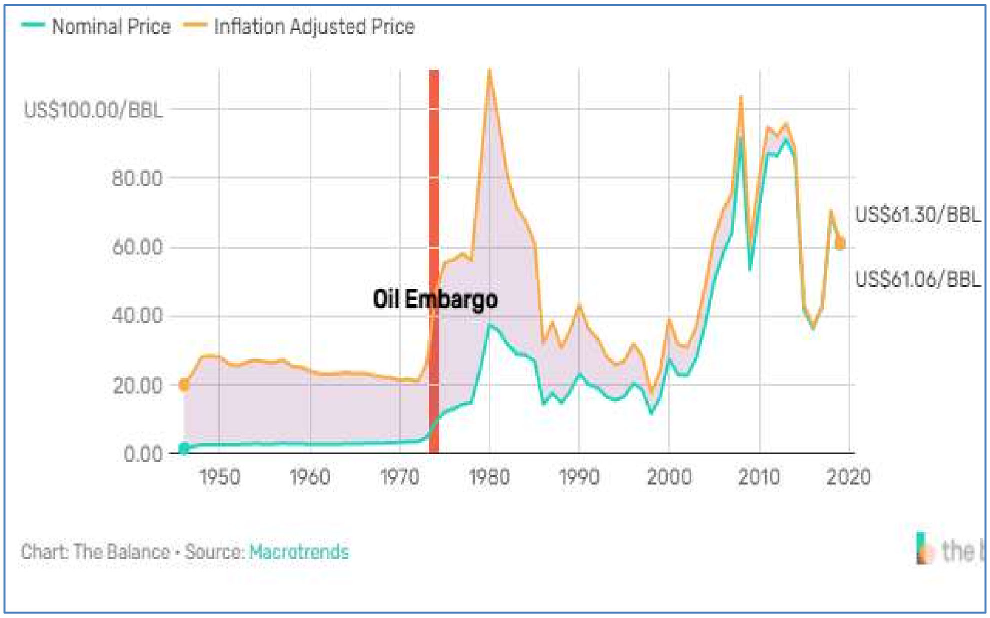
- An embargo can block the essential goods and services to the civilian population of the state that is subject to the restriction.
- In a state that imposes an embargo, businesses may lose the ability to trade or invest in the state that is subject to the embargo.
- An embargo further hampers economic growth of any country.

Examples of Embargo

- U.N. V/s North Korea: - North Korea has been the recipient of several different embargoes and economic sanctions from multiple countries included in the United Nations (U.N.). While sanctions expand to many different types of goods and services like luxury goods, agricultural exports, and oil, it completely prohibits the trade of weapons with North Korea.

- U.S. V/s OPEC: -

  - In 1973-74 the Organization for Petroleum Exporting Countries (OPEC) imposed a trade embargo and stopped exporting oil to U.S. after the U.S. supported Israel during the Arab-Israeli War.
  - This embargo led to a gas shortage and destabilized the U.S. economy. The oil embargo aggravated inflation by raising oil prices and further led to recession. During the OPEC oil embargo, inflation-adjusted oil prices went up from $25.97 per barrel (bbl) in 1973 to $46.35 per barrel (bbl) in 1974.



- Wage-price controls forced companies to keep wages high, which meant businesses laid off workers to reduce costs.
- The oil embargo gave OPEC new power to achieve its goal of managing the world's oil supply and keeping prices stable.
- Since the embargo, OPEC has continued to use its influence to manage oil prices. Presently, OPEC controls about 42% of the world's oil supply. It also controls 60% of oil exports and 72% of proven oil reserves.

International sanctions during the 2022 Russian invasion of Ukraine

International sanctions have been imposed during the Russian–Ukrainian War by a large number of countries against Russia following the Russian invasion of Ukraine, which began in late February 2014. The sanctions were imposed by the United States, the European Union (EU) and other countries and international organizations against individuals, businesses and officials from Russia and Ukraine. Russia responded with sanctions against several countries, including a total ban on food imports from Australia, Canada, Norway, Japan, the United States and the European Union. Other major sanctions imposed on Russia are as under: -

- The United States, the European Union, the United Kingdom and Canada banned certain Russian banks from SWIFT , the high security network that facilitates payments among 11,000 financial institutions in 200 countries.
- EU Commission said the measures will paralyze Russia's central bank assets and freeze its transactions, making it impossible to liquidate its assets.
- Germany halted certification of the Nord Stream 2 gas pipeline following Moscow's actions.
- The US is banning all Russian oil and gas imports and the UK will phase out Russian oil imports by the end of 2022.

- The EU, which gets a quarter of its oil and 40% of its gas from Russia, says it will switch to alternative supplies and make Europe independent from Russian energy "well before 2030".
- New Zealand is prohibiting the export of goods to the Russian military and security forces in response to the invasion of Ukraine.
- All Russian flights have been banned from US, UK, EU and Canadian airspace. The UK says it will ban the export of luxury goods to Russia - including vehicles, high-end fashion and art. The EU has already imposed a ban. The UK will also put a 35% tax on some imports from Russia, including vodka.
- The US, EU and UK have together sanctioned over 1,000 Russian individuals and businesses, including wealthy business leaders known as oligarchs, who are considered close to the Kremlin.
- US Secretary of State announced further actions against Russia including barring Russian financial institutions such as the Russian Central Bank from making transactions in American dollars. The US also imposed sanctions on the state-owned Russian Direct Investment Fund
- The United Kingdom imposed fresh sanctions on Russian banks and will prevent Sberbank, Russia's largest bank, from clearing payments in Sterling. Further, three more Russian banks - Otkritie, Sovcombank and VEB -- will face a full asset freeze.
- A growing number of international companies including McDonald's, Coca-Cola and Starbucks have suspended trading in Russia.

Consequence of Russia embargo (restriction imposed on Russia by US, UK and allied nations)

- The Ruble hit record lows, sliding as much as 30% against the dollar, while the Russian central bank more than doubled interest rates to 20%.
- This has pushed up the price of imported goods and led to a 14% rise in Russia's rate of inflation.
- In return, Russia has banned exports of more than 200 products until the end of 2022, including telecoms, medical, vehicle, agricultural, electrical equipment and timber.
- In addition, it is blocking interest payments to foreign investors who hold government bonds, and banning Russian firms from paying overseas shareholders.
- The prospect of cutting off the supply of Russian gas could have profound public health and economic consequences, particularly leading to food crisis and food/oil inflation.

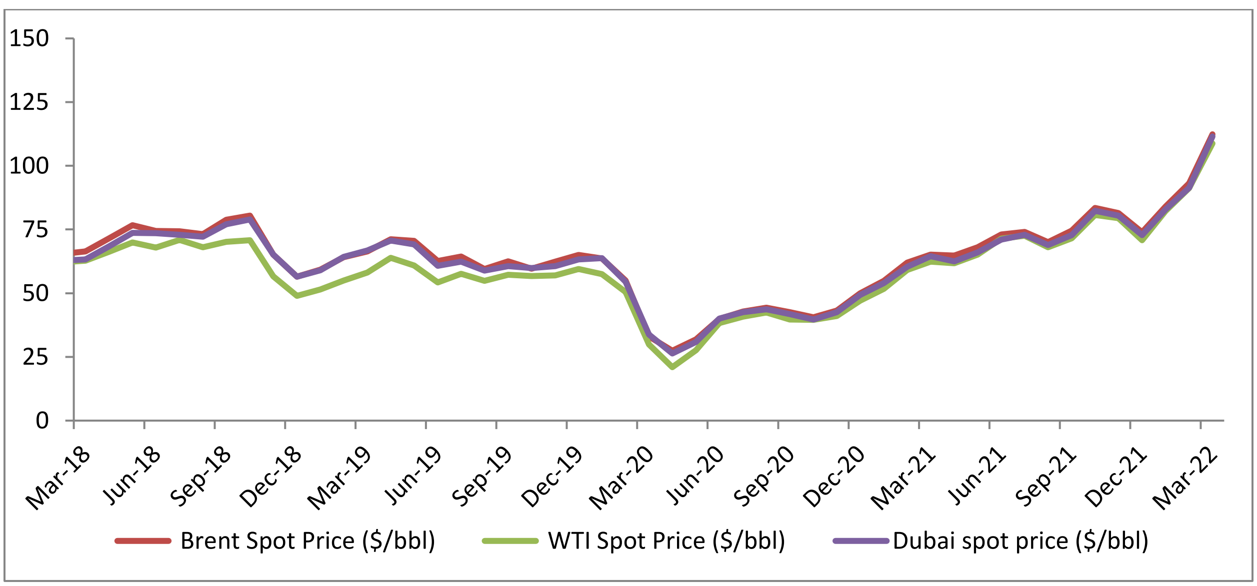
Oil Market

Crude oil price – Monthly Review

Oil has experienced one of its most tumultuous trading periods ever as the war in Ukraine and the ensuing sanctions against Russia drove wild price fluctuations that pushed volatility to historic levels. Brent prices soared to a 14-year high of $140 a barrel in March 2022, as US, UK and many allied countries banned Russian oil and gas imports. It was towards end of March 2022 that prices swiftly fall back to $100/bbl. Brent crude touched a high of $112.78 while U.S. West Texas Intermediate (WTI) jumped to $105.53 a barrel, towards end of last week of March 2022.

High energy prices can cause fears of major disruption to the global energy supply. At five million barrels per day (mb/d), Russia is the second-largest crude oil exporter, right behind Saudi Arabia. It also supplies around 2.8 mb/d of petroleum products, including gasoline, to the international markets. Russia is the world's third-biggest oil producer and second-biggest producer of natural gas, ranking among the top energy suppliers to the US and China, the world's top two economies. As a share of the global market, Russia accounts for five percent of the oil supply. As Russian forces continue to bomb Ukrainian cities, concerns over the disruption of energy supplies to international markets are mounting.

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



Source: WORLD BANK

- Brent crude price averaged $ 112.37 per bbl in March 2022, up by 20.7 % on a month on month (MoM) and 72.3 % on year on year (YoY) basis, respectively.

- WTI crude price averaged $ 108.77 per bbl in March 2022, up by 19.2 % on a month on month (MoM) and 74.3 % on year on year (YoY) basis, respectively.
- Dubai crude price averaged $ 111.51 per bbl in March 2022, up by 22.0 % on a month on month (MoM) and 72.9 % on year on year (YoY) basis, respectively.

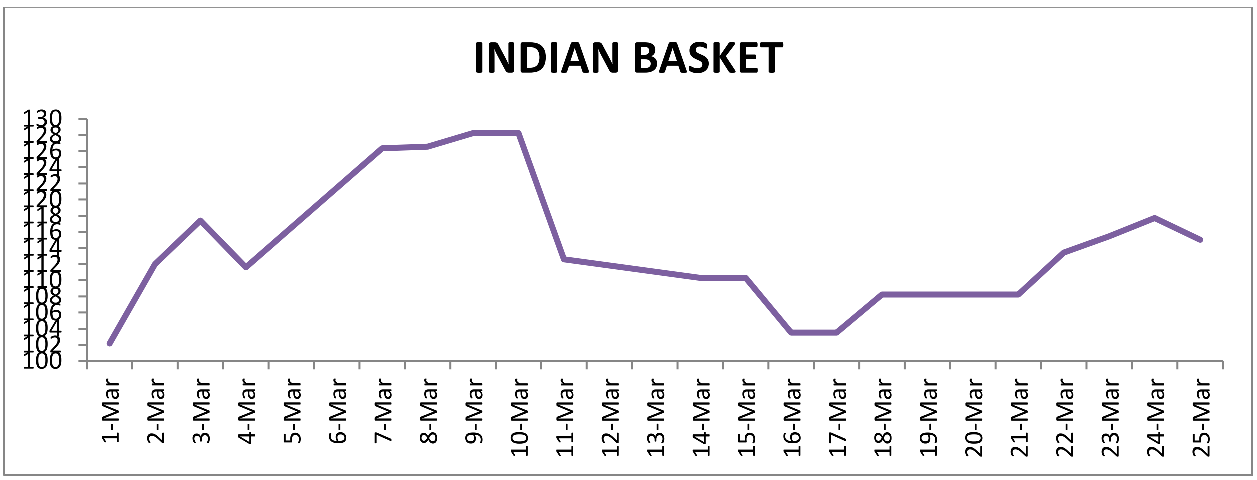
Table 1: Crude oil price in March, 2022

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	112.37	20.7%	72.3%
WTI	108.77	19.2%	74.3%
Dubai	111.51	22.0%	72.9%

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 $ 114.25 per barrel in March 2022, up by 23.6 % on Month on Month (M-o-M) and 76.5 % on a year on year (Y-o-Y) basis, respectively.

Oil production expected to outpace demand

Non-OPEC liquids supply growth remained broadly unchanged from last month's assessment at around 0.6 mb/d y-o-y. Total US liquid output increased by 0.15 mb/d, y-o-y. Oil supply in 4Q21 is estimated to have declined in Canada and Australia, while there have been some minor upward revisions in other countries. The forecast for non-OPEC supply for 2022 remains at 3.0 mb/d, y-o-y. The main drivers of liquids supply growth are expected to be the US, followed by Canada, Brazil, Kazakhstan, Guyana and

Norway. OPEC NGLs are forecast to grow by 0.1 mb/d both in 2021 and 2022 to average 5.1 mb/d and 5.3 mb/d, respectively. In February, OPEC crude oil production increased by 0.44 mb/d m-o-m, to average 28.47 mb/d.

As crude oil prices soar amid severe supply concerns, the 31 member-countries of the governing board of the International Energy Agency (IEA) have agreed to release 60 million barrels of oil from their emergency reserves. IEA members hold emergency stockpiles of 1.5 billion barrels. The announcement of an initial release of 60 million barrels, or 4% of those stockpiles, is equivalent to 2 million barrels a day for 30 days. Further, European countries plan to reduce its reliance on Russian natural gas and would focus on other suppliers, including via LNG, and to continue to pursue a well-managed acceleration of clean energy transitions.

Oil demand & supply

- According to OPEC estimates, world oil demand growth in 2021 is revised up by 0.05 mb/d, to now stand at 5.7 mb/d. The 4Q21 figure for all OECD region is revised higher, as a result of the better performance. The OECD in 2021 increased by 2.7 mb/d, while the non-OECD showed growth of 3.1 mb/d. Given the above-mentioned developments and the extremely high uncertainty surrounding global macroeconomic performance, the 2022 forecast for global oil demand growth remains under assessment at 4.2 mb/d, with OECD forecast at 1.9 mb/d and non-OECD at 2.3 mb/d.
- Non-OPEC liquids supply growth y-o-y in 2021 has been revised down slightly by 0.01 mb/d to around 0.6 mb/d, for an average of 63.6 mb/d. The US liquids supply growth forecast for 2022 remains unchanged at 1.03 mb/d. The main drivers of liquids supply growth are expected to be the US, Brazil, Canada, Kazakhstan, Guyana and Norway
- OPEC NGLs and non-conventional liquids production in 2021 shows growth of 0.1 mb/d y-o-y for an average of 5.1 mb/d. Growth of 0.1 mb/d y-o-y is forecast for 2022 for an average of 5.3 mb/d. OPEC-13 crude oil production in February increased by 0.44 mb/d m-o-m to average 28.47 mb/d.

Table 2: World Oil demand in mbpd	2021	1Q2022	2Q2022	3Q2022	4Q2022	2022	Growth	%
Total OECD	**44.67**	**44.77**	**45.83**	**47.49**	**48.11**	**46.56**	**1.90**	**4.25**
~ of which US	*19.93*	*19.65*	*21.03*	*21.32*	*21.28*	*20.82*	*0.90*	*4.50*
Total Non-OECD	**52.07**	**54.37**	**53.95**	**5387**	**55.13**	**54.33**	**2.26**	**4.33**
~ of which India	*4.76*	*5.48*	*4.82*	*4.97*	*5.35*	*5.15*	*0.39*	*8.20*
~ of which China	14.56	14.54	15.50	15.06	15.65	15.19	0.62	4.29
Total world	**96.74**	**99.14**	**99.78**	**101.36**	**103.24**	**100.90**	**4.15**	**4.29**

Source: OPEC monthly report, March 2022

 # During 2022 rising oil demand will be supported by increasing requirements in all main petroleum product categories, however, some downside risks pertain relating to rising COVID-19 cases, new variants and their associated containment measures, as well as fuel substitution.

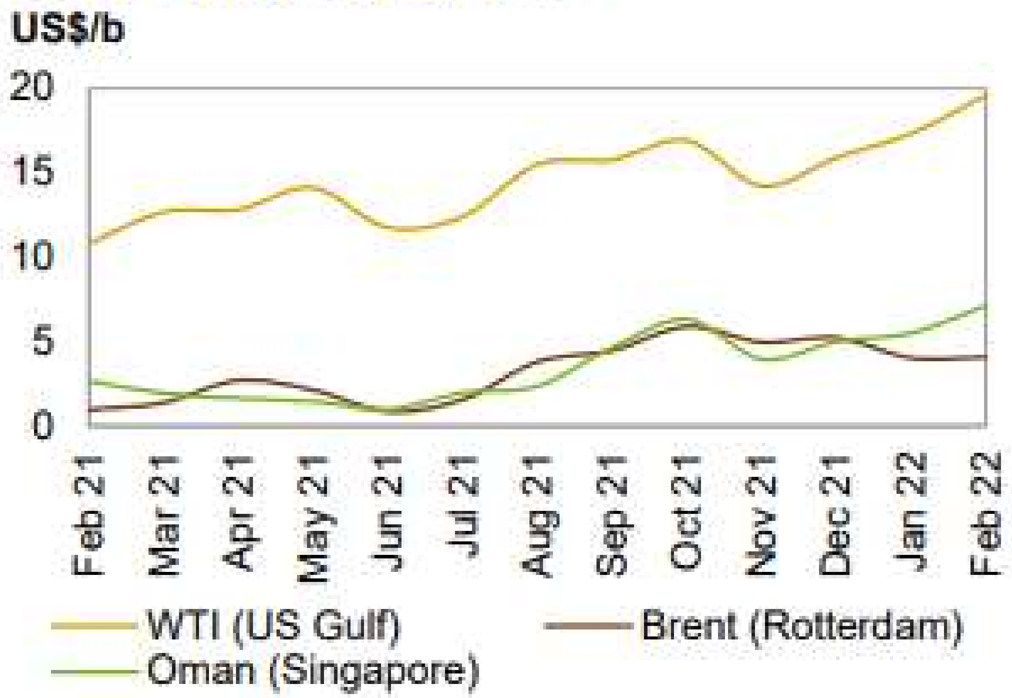
*Note: *2021=Estimation and 2022 = Forecast. Totals may not add up due to independent rounding*

Global petroleum product prices

US Gulf Coast (USGC) refining margins against WTI trended upwards to reach a new post pandemic high. Product output restrictions in some parts of the US were affected by a winter storm early-February with an estimated 800 tb/d of PADD-3 refining capacity temporarily going offline amid the onset of the heavy refinery maintenance season. US refinery intakes in the US declined by around 190 tb/d in February relative to the previous month.

Refinery margins in Northwest Europe against Brent exhibited modest improvement, with a positive performance seen in the gasoline and gasoil markets, as higher prices for the same fuels provided a lift to their crack spreads. An improvement in regional transport fuel consumption as some Europeans countries decided to alleviate the pandemic-related restrictions provided support to product markets in Europe. European refinery run rates declined slightly by 60 tb/d m-o-m, while strong diesel crack spreads continued to encourage a push for higher diesel yields to increase profits. Refinery margins against Brent in Europe averaged $4.09/b, up by $3.13 y-o-y.

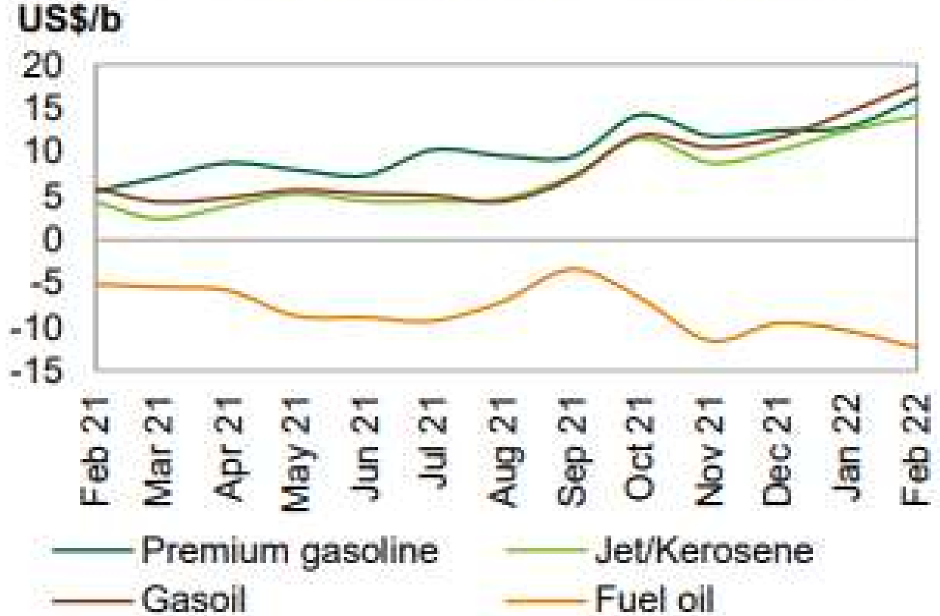
Graph 6 - 1: Refining margins



Sources: Argus and OPEC.

Asia naphtha crack spreads rebounded from the downturn supported by surging naphtha prices in Asia with viable alternative for Russian naphtha supplies flowing into the region seeming limited in the near term. The Singapore naphtha crack spread against Oman averaged $3.64/b, having increased by $2.42 m o-m, and $2.62 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

The Singapore gasoil crack spread soared to a record breaking high reflective of strong regional demand, firm industrial and manufacturing activity as well as a contraction in gasoil availability in the region amid expectations for an even tighter market going forward. The Singapore gasoil crack spread against Oman averaged $17.80/b, up by $3.30 m-o-m and up by $11.93 y-o-y.

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

Singapore product prices	Price ($/b) in March 2022	MoM (%) change	YoY (%) change
Naptha	84.56	8.7%	51.5%
Premium gasoline (unleaded 95)	98.04	11.5%	63.3%
Regular gasoline (unleaded 92)	96.18	12.1%	63.2%
Jet/Kerosene	95.78	14.7%	65.1%
Gasoil/Diesel (50 ppm)	98.99	15.6%	65.5%
Fuel oil (180 cst 2.0% S)	97.43	15.3%	65.8%
Fuel oil (380 cst 3.5% S)	72.97	14.5%	44.9%

Source: OPEC

Petroleum products consumption in India

Monthly Review:

- The consumption of petroleum products in February 2022 with a volume of 17.6 MMT recorded a growth of 5.4% on volume of 16.7 MMT in February 2021.
- MS (Petrol) consumption during the month of February 2022 with a volume of 2.55 MMT recorded growth of 3.5 % over the volume of 2.46 MMT in February 2021.

- HSD (Diesel) consumption during the month of February 2022 with a volume of 6.51 MMT recorded de-growth of 0.7 % of the volume of 6.56 MMT in the month of January 2021.
- LPG consumption during the month of February 2022 with a volume of 2.4 MMT recorded growth of 5.9 % against a volume of 2.27 MMT in the month of February 2021.
- ATF consumption during February 2022 with a volume of 0.44 MMT registered a growth of 0.4 % over a volume of 0.43 MMT during the month of February 2021.
- Bitumen consumption during February 2022 with a volume of 0.88 MMT recorded growth of 20.2 % on YOY change.
- Kerosene (SKO) consumption registered de-growth of 14.5% in February 2022 as compared to February 2021.

Table 4: Petroleum products consumption in India, February 2022

CONSUMPTION OF PETROLEUM PRODUCTS (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,400	-6.6%	5.9%
Naphtha	1,188	-7.6%	-2.9%
MS	2,550	3.1%	3.5%
ATF	435	-4.5%	0.4%
SKO	117	-7.2%	-14.5%
HSD	6,511	2.2%	-0.7%
LDO	86	-6.9%	7.7%
Lubricants & Greases	399	0.8%	22.4%
FO & LSHS	523	-4.0%	-1.0%
Bitumen	882	9.5%	20.2%
Petroleum coke	1,403	-0.8%	-12.2%
Others	1,080	-0.4%	17.6%
TOTAL	17,574	-0.2%	1.8%

Source: PPAC

Natural Gas Market

Natural Gas Price – Monthly Review

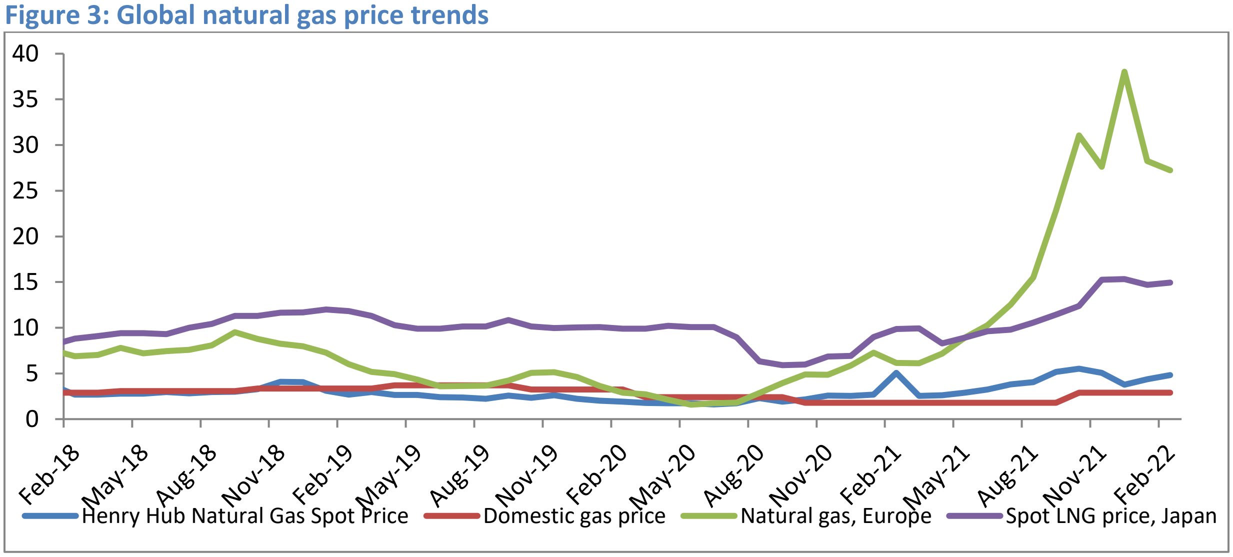
- Natural gas spot price at the U.S. benchmark Henry Hub is averaging at $ 4.82/MMBtu and prices are expected to be volatile amid highly variable winter weather forecast.

- The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe has been trading at all-time high levels. The TTF price averaged $27.23 per MMBtu. Gas prices are also being driven by fewer LNG tanker deliveries to Europe as a result of increased demand from Asia. Further, gas prices are expected to remain high driven by greater demand from the post-pandemic recovery, low storage capacity, and tensions in Ukraine.

- Japan Liquefied Natural Gas Import Price is averaging at $ 14.94 per mmBtu for February 2022, up from 14.69 last month which is a change of 1.7% from last month. The rise in prices is a result of persistent cold weather conditions in Japan that results in increase in natural gas heating expenditures during winter.

- The price of domestically produced natural gas is $6.10 per million British thermal unit (mmBtu) from April1, 2022 to September 30, 2022. The price of domestic gas price has been hiked by 110 percent from the previous revision which was $2.90 per mmBtu for October 1, 2021, to March 31, 2022. The domestic gas price increase was driven by the significant run-up in the prices of gas at global gas hubs. 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 $6.13 per mmBtu to $9.92 per mmBtu.

Figure 3: Global natural gas price trends



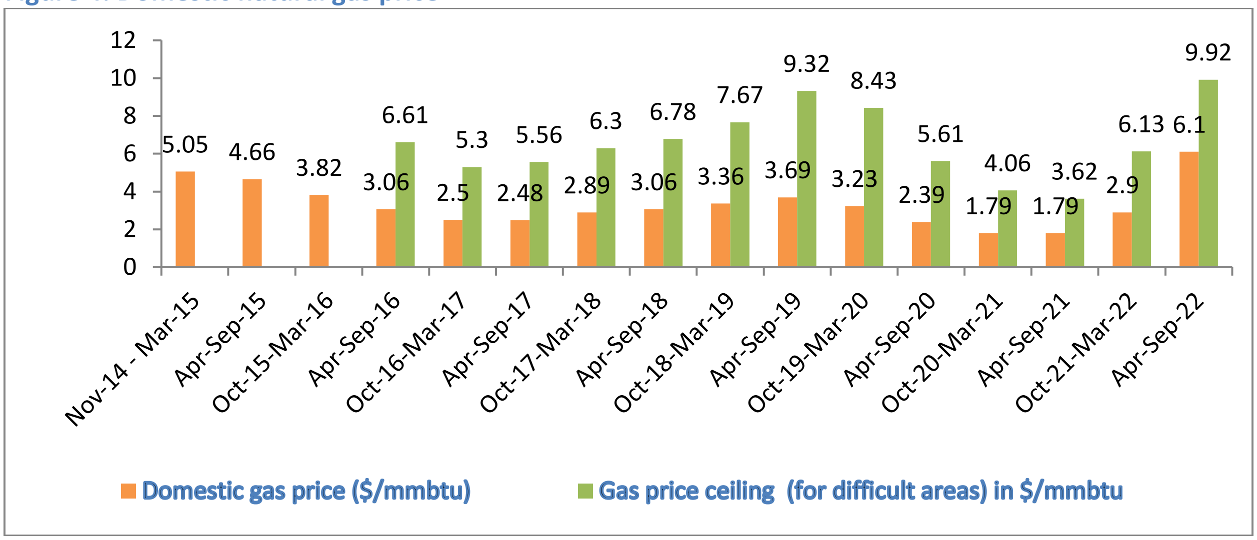
Source: EIA, WORLD BANK

Table 5: Gas price

Natural Gas	Price ($/MMBTU) in March 2022	MoM (%) change	YoY (%) change
India, Domestic gas price	6.10	110%	240%
India, Gas price ceiling – difficult areas	9.92	61.83%	174.03%
Henry Hub	4.82	10.0%	-4.9%
Natural Gas, Europe	27.23	-3.6%	342.0%
Liquefied Natural Gas, Japan	14.94	1.7%	51.2%

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 February, 2022 was 2602 MMSCM (increase of 12.8 % over the corresponding month of the previous year).
- Total imports of LNG (provisional) during the month of February 2022 were 2507 MMSCM (decrease of 0.5% over the corresponding month of the previous year).
- Natural gas available for sale during February 2022 was 4587 MMSCM increase of 5.4 % over the corresponding month of the previous year).
- Total consumption during February 2022 was 4324 MMSCM (provisional). Major consumers were fertilizer (28%), City Gas Distribution (CGD) (24%), power (13%), refinery (8%) 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 – February 2022

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of February, 2022 was 2602 MMSCM (increase of 12.8 % over the corresponding month of the previous year).

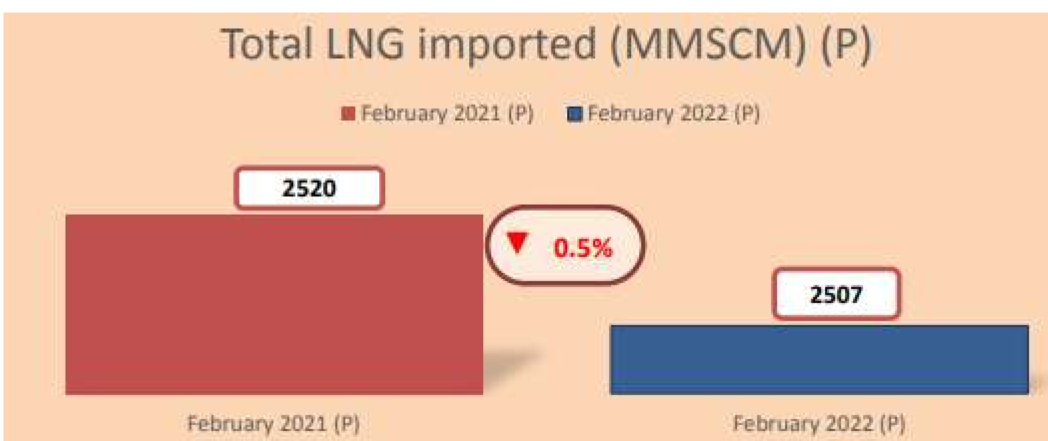
Figure 10: Domestic natural gas Gross production (Qty in MMSCM)

Source: PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of February 2022 were 2507 MMSCM (decrease of 0.5 % over the corresponding month of the previous year 2520 (MMSCM).

Figure 11: LNG imports (Qty in MMSCM)

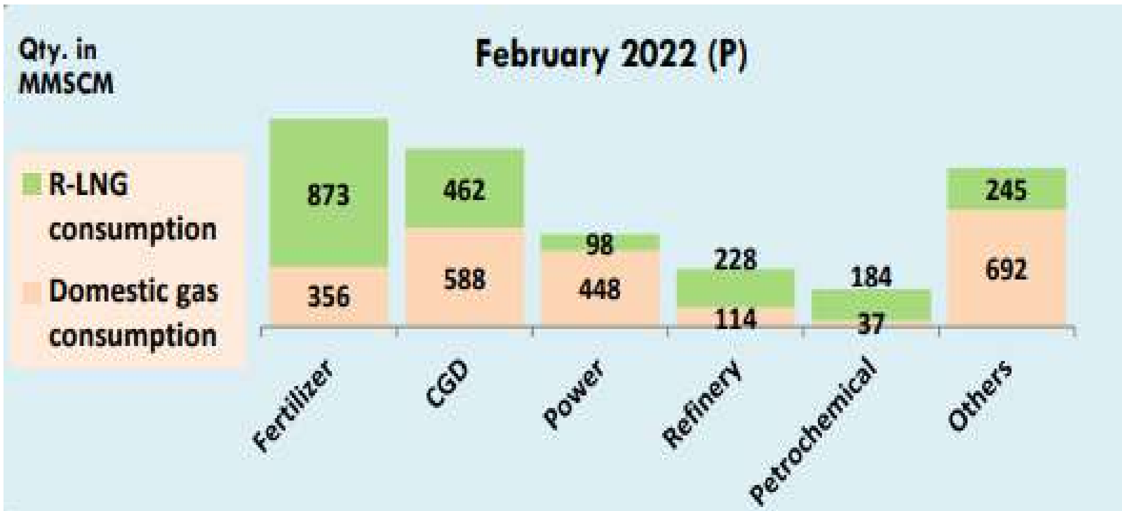


Source: PPAC

3. Sectoral Consumption of Natural Gas:

Total consumption of natural gas during February 2022 was 4794 MMSCM. Major consumers were fertilizer, CGD, power, refinery, others and petrochemicals.

12: Sectoral Consumption of Natural Gas (Qty in MMSCM) in February 2022



Source: PPAC

Key developments in Oil & Gas sector during February 2022

- **Monthly Production Report for February, 2022**

1. Production of Crude Oil

Indigenous crude oil and condensate production during February 2022 was lower by 2.2 % than that of February 2021 as compared to a de-growth of 2.4 % during January 2021. OIL registered a growth of 5.4 % and ONGC registered a de-growth of 2.2 % during February 2022 as compared to February 2021. PSC registered de-growth of 5.1 % during February 2022 as compared to February 2021. De-growth of 2.6 % was registered in the total crude oil and condensate production during April - February 2022 over the corresponding period of the previous year.

2. Production of Natural Gas

Gross production of natural gas for the month of February 2022 was 2602 MMSCM which was higher by 12.8% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 31137 MMSCM for the current financial year till February 2022 was higher by 19.8% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Crude oil processed during February 2022 was 20.4 MMT, which was 9.8 % higher than February 2021 as compared to a degrowth of 0.5 % during January 2021. Growth of 9.3 % was registered in the total crude oil processing during April- February 2022 over the corresponding period of the previous year

4. Production of Petroleum Products

Production of petroleum products saw a growth of 8.8 % during February 2022 over February 2021 as compared to a growth of 3.7 % during January 2021. Growth of 9.1 % was registered in the total POL production during April- February 2022 over the corresponding period of the previous year.

Key Policy developments in Energy sector

- **Green Energy Corridor - Intra-State Transmission System Phase-II scheme**

The Government of India approved the Green Energy Corridor - Intra-State Transmission System Phase-II scheme. The project cost is Rs. 12,031.33 crore with Central Financial Assistance (CFA) @ 33% of the project cost i.e., Rs 3,970.34 crore. The transmission infrastructure under the scheme will be setup in seven states namely Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.

Phase 1 of the Green Energy Corridor is already under implementation in Gujarat, Andhra Pradesh, Karnataka, Himachal Pradesh, Maharashtra, Madhya Pradesh, Tamil Nadu, and Rajasthan. It is working for the grid integration and power evacuation of about 24GW of Renewable Energy. It aims at synchronizing the electricity produced from renewable resources, such as wind and solar, with the conventional power stations in the grid.

It aims to achieve the target of 450 GW installed RE capacity by 2030. The objective of the GEC is to evacuate approx. 20,000 MW of large-scale renewable power and improvement of the grid in implementing states. The scheme will contribute to the long-term energy security of India and will promote ecologically sustainable growth by reducing carbon footprint.

- **Cabinet approves setting up of National Land Monetization Corporation as a Special Purpose Vehicle (SPV) for undertaking surplus land monetization**

The Union Cabinet, chaired by Prime Minister Shri Narendra Modi has approved the setting up National Land Monetization Corporation (NLMC) as a wholly owned Government of India company with an initial authorized share capital of Rs 5000 crore and paid-up share capital of Rs 150 crore. NLMC will undertake monetization of surplus land and building assets of Central Public Sector Enterprises (CPSEs) and other Government agencies. The proposal is in pursuance of the Budget Announcement for 2021-22.

With monetization of non-core assets, Government would be able to generate substantial revenues by monetizing unused and under-used assets. At present, CPSEs hold considerable surplus, unused and under used non-core assets in the nature of land and buildings. For CPSEs undergoing strategic disinvestment or closure, monetization of these surplus land and non-core assets is important to unlock their value. NLMC will support and undertake monetization of these assets. This will also enable productive utilization of these under-utilized assets to trigger private sector investments, new economic activities, boost local economy and generate financial resources for economic and social infrastructure.

- **Cabinet approves amendment in Mega Power Policy 2009 for Provisional Mega Power Projects**

The Cabinet Committee on Economic Affairs, chaired by the Prime Minister, Shri Narendra Modi, approved the time extension (36 months) to identified 10 Provisional Mega certified projects for furnishing the final Mega Certificates to the Tax authorities.

Extension of time period for furnishing final mega certificate will enable developers to competitively bid for future PPAs and get tax exemptions as per Policy terms. The increased liquidity will boost the overall growth of the country and also ensure the revival of various stressed power assets. The time period for the 10 Provisional Mega projects which are commissioned/ partly commissioned for furnishing the final Mega certificates to the Tax authorities has been extended to 156 months instead of 120 months from the date of import. During this extended period, bids for firm power (combination of intermittent renewable energy, storage and conventional power) will be invited in co-ordination with Ministry of New & Renewable Energy (MNRE) and Solar Energy Corporation of India Limited (SECI) and these Mega projects will be expected to participate in such bids to secure PPAs.

- **Pricing of Bulk Diesel have been de-regulated w.e.f. 18.01.2013**

The Minister of State for Petroleum and Natural Gas, Shri Rameswar Teli informed that the Oil Marketing Companies (OMCs) supply High Speed Diesel (HSD) to bulk consumers like Railways, State Transport Undertakings (STUs), Defence, Corporates etc at the bulk rates. Pricing of Bulk Diesel have been de-regulated w.e.f. 18.01.2013. Effective this date, OMCs have been deciding on the Bulk Diesel prices based on the prices of Diesel in the international market, exchange rate and market conditions, etc. Further, various discount/incentive schemes are in operation depending on the market scenario, demand/supply situations, etc.

The prices of Retail and Bulk Diesel for the month of January and February, 2022 are as under:

(Rs./KL)

Price effective from	Bulk HSD Price	Retail HSD Price
16th January, 2022	48,942.38	49,333.68
1st February, 2022	53,488.62	49,341.91
16th February, 2022	56,889.37	49,341.91

Above prices are All India ESPP (Ex Storage Point Price) which is excluding freight, discounts, duties and taxes.

- **National Hydrogen Mission**

On August 15, 2021, Hon'ble Prime Minister announced the launch of National Hydrogen Mission. The Ministry of New and Renewable Energy has accordingly prepared a draft Mission document. The draft Mission proposes a framework for a phased implementation approach, demand creation, a basket of measures to support production and utilization of Green Hydrogen, support for indigenous manufacturing, Research & Development, pilot projects, enabling policies and regulations, and infrastructure development. Both private companies and Public Private Partnership entities are expected to be facilitated by the measures proposed in the draft Mission.

The draft Mission inter alia proposes support for infrastructure development for storage and distribution of Green Hydrogen and its derivatives. Further, Ministry of Power's orders issued on 17 February 2022 provides that "Manufacturers of Green Hydrogen / Green Ammonia shall be allowed to set up bunkers near Ports for storage of Green Ammonia for export / use by shipping. The land for the storage purpose shall be provided by the respective Port Authorities at applicable charges." The number of bunkers to be set up would depend on demand for exports and marine applications.

- **PM delivers opening address for the budget webinar on "Energy for Sustainable growth"**

To facilitate effective and expeditious implementation of Union Budget 2022 announcements, Government of India is holding a series of webinars across various key sectors. As part of this series, the Sectoral Group on Resources comprising seven ministries organized a webinar on "Energy for Sustainable Growth" on March 4, 2022 to discuss the initiatives of the Government of India in the energy and resources sector which were announced in the Budget 2022 to elicit ideas and suggestions for effective implementation of these initiatives. The webinar comprised sessions on six themes and witnessed participation of industry leaders, government officials and experts.

Prime Minister Shri Narendra Modi gave a special address at the Plenary Session of the webinar. Reiterating India's commitment to climate action and energy transition, Prime Minister urged discussion on key budget announcements like Rs 19500 crore allocation for PLI for high efficiency PV solar modules, Green Hydrogen Mission, Coal Gasification, Battery storage and clean cooking among others. Prime Minister urged the industry leaders to give concrete and practical suggestions to help evolve implementable action plans.

The industry leaders gave several concrete suggestions which included support for indigenous manufacturing for solar modules which may be extended to the entire value chain, including subcomponents and materials. Regarding Green Hydrogen, the industry welcomed the recent announcement of banking provisions and ISTS waiver for Green Hydrogen. It was suggested that to further optimize the cost of Green Hydrogen production, a mechanism for Inter-State banking of RE may be considered. Industry leaders suggested that Solar cooking through both electric and thermal routes may be promoted. Startups have developed hybrid stoves that can work both on gas and solar power, these may also be explored. Rooftop solar promotion efforts may be intensified, given its huge potential. Carbon pricing mechanism would be beneficial for emerging technologies. Government may also consider incentivizing Carbon capture and utilization. Circular Economy principles were also discussed which are being considered in MNRE's committee on the subject. MNRE would be taking time bound action for implementation of the budget announcements.

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Research, analysis & compilation by:

Economic Policy & Planning Team -FIPI

Email: prai@fipi.org.in