FIPI

Federation of Indian Petroleum Industry

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

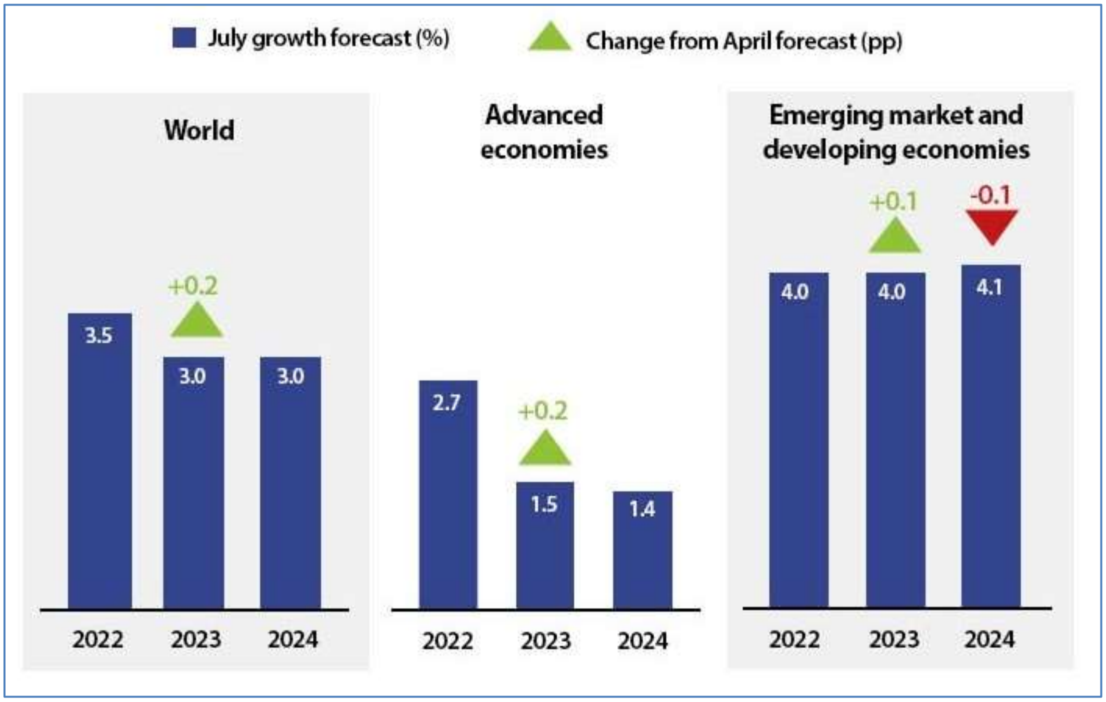
AUGUST 2023

Table of Contents

Executive Summary

According to IMF, the global growth is projected to fall from an estimated 3.5 % in 2022 to 3.0 % in both 2023 and 2024. The rise in central bank policy rates to fight inflation continues to weigh on economic activity. Further while supply chains have largely recovered, and shipping costs and suppliers' delivery times are back to pre-pandemic levels, policy tightening by central banks in response to inflation has raised the cost of borrowing, constraining economic activity.

Figure- Global GDP Projections



Source- IMF

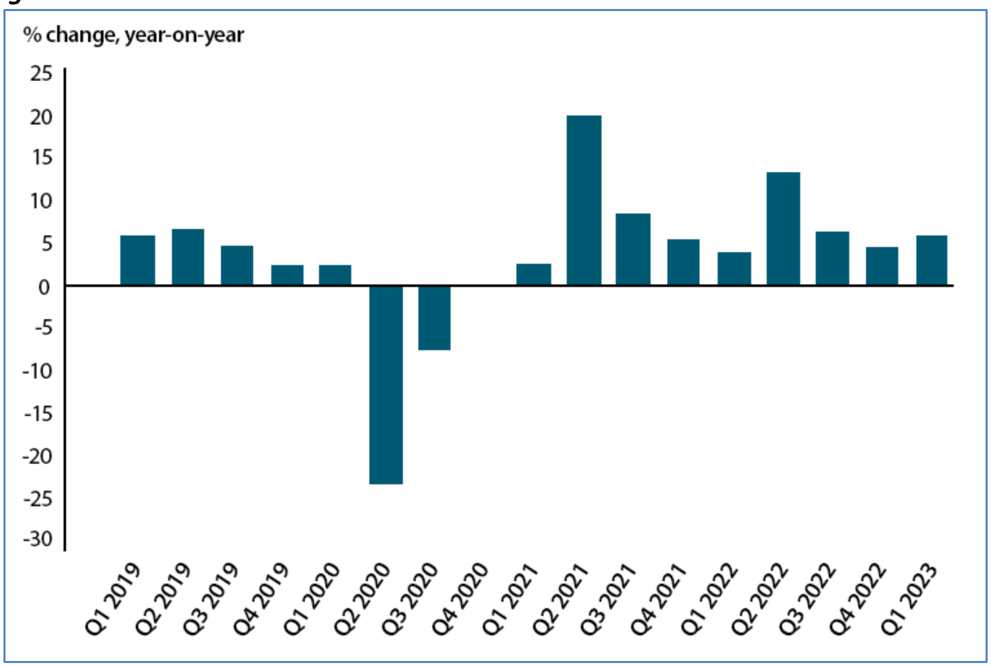
As far as India is concerned, according to S&P Global, the Indian economy is expected to grow at an average rate of 6.7 % between fiscal 2023-24 (FY24) to fiscal 2030-2031 (FY31). India's gross domestic product (GDP) is likely to rise to $6.7 trillion to FY31 from $3.4 trillion in FY23, said S&P Global in its August volume report titled ''Look Forward, India Moment''.

S&P Global said that India's short-term economic growth will be driven by a 678.6 million strong labor force, and an immense opportunity to increase its share of global manufacturing exports, in line with the government's aim to raise manufacturing to 25 % of GDP by 2025 from the current levels of 17.7 %. Already the third largest consumer of energy globally, India's per capita energy consumption remains just one tenth that of the United States, according to the report. S&P Global Commodity Insights expects the country's total energy demand to double by 2050.

S&P Global also made following observations for India growth during first half of FY 2023-24: -

- Recent economic indicators for India during the first half of 2023 continue to signal expansionary economic conditions driven by domestic demand. Steel production rose by 11.9% y/y in the April-June quarter, while consumption of steel rose by 10.2% y/y.
- Sales of commercial vehicles rose sharply higher in FY2022-23, increasing by 34.3% y/y, while sales of private vehicles rose by 18.7% y/y in FY2022-23.
- The index of industrial production recorded growth of 4.5% y/y in the April-June quarter, while manufacturing output rose by 4.7% y/y in the same quarter.
- In the April-June quarter of 2023, production of capital goods rose by 4.9% y/y, while production of infrastructure and construction goods rose by 14.0% y/y.

Figure- India GDP Growth



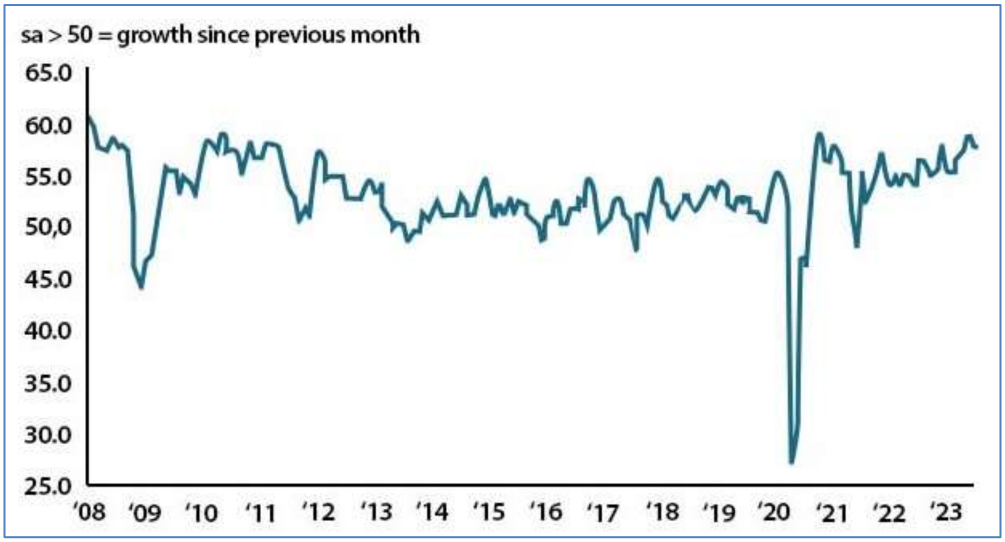
Source- S&P Global

The Consumer Price Index-based inflation stood at 7.44% in July compared with 4.87% in June, according to data from the Ministry of Statistics and Programme Implementation. Food and beverage inflation rose to 10.57% during the month from 4.6% in the previous month. Consumer price inflation exceeded the central bank's target range of 4 (+/- 2) % for the first time since February this year. The spike in vegetable prices, led by tomatoes, would exert sizeable upside pressures on the near-term headline inflation trajectory, the Monetary Policy Committee had said.

The Reserve Bank of India (RBI) in its August Monetary Policy Statement raised its projected CPI inflation rate for the current fiscal year (2023-24) to 5.4%, compared with its 5.1% y/y projection made in the June Monetary Policy Statement.

The seasonally adjusted S&P Global India Manufacturing Purchasing Managers' Index (PMI) posted 57.7 in July, broadly in line with the reading of 57.8 in June. The index signaled continued robust expansion in the manufacturing sector. Business conditions have now strengthened in each of the past 25 months.

Figure- India Manufacturing PMI



Source- S&P Global

Rising from 58.5 in June to 62.3 in July, the seasonally adjusted S&P Global India Services PMI Business Activity Index signaled the sharpest increase in output since June 2010. The upturn was largely attributed to demand strength and new business gains.

According to the recent Bloomberg report for July, the overall unemployment rate in India is 7.95 % as of July 2023 from 8.45% in June 2023. Rural unemployment rate fell to 7.89%, from 8.73% in June, while urban unemployment rate ticked up, to 8.06% from 7.87% in the same period. India's overall unemployment rate fell in July as rural areas saw increased demand for agriculture labor with the onset of monsoon rain.

As far as oil and gas industry is concerned, Global oil prices moved steadily higher during July and into early August, reflecting a market tightening. Deepening OPEC+ supply cuts collided with improved macroeconomic sentiment and all-time high world oil demand. North Sea Dated rose by $10/bbl over the month to around $85/bbl, its highest since April. With output cuts hitting the heavy sour crude market hard, Dubai crude is trading at a rare premium to Brent, while the price of Urals crude has breached the G7-led price cap now making all Russian oil exports ineligible for G7 and EU maritime services.

Crude spot prices rose on average m-o-m in July driven by higher futures prices and stronger physical crude supply/demand fundamentals. Robust buying in the spot market including for near-term loading volumes for July and August trading cycles, concurrent with higher refinery intakes in July and firm demand from Asian buyers, including Chinese refiners supported spot prices.

Crude oil futures prices bounced back in July from low levels recorded in June, as selling pressure in futures markets ceased and market sentiment turned optimistic about improving global oil market fundamentals in the second half of 2023. Moreover, the expectations that central banks were approaching the end of their monetary tightening cycles, the sharp decline of the US dollar in the first half of July and expectations of economic stimulus in China added to the positive sentiment in financial markets.

Hedge funds and other money managers recovered a large part of their combined futures and options net long positions in July, after significantly cutting their bullish positions in May and June, mirroring an improved market sentiment and a change in speculators' strategy. Money managers rush to cover short positions built in the previous month, which contributed to pushing oil futures prices higher. The rise of net long positions was mainly due to the large drop in short positions.

Natural gas spot prices at the U.S. Henry Hub benchmark averaged $2.55 per million British thermal units (MMBtu) in July 2023. Henry Hub's natural gas prices experienced a consecutive monthly increase in July, rising by 17.0% m-o-m. Prices rose sharply in the month, supported by buying interest for US LNG in the Asian markets amid higher prices in the region. LNG spot prices in Asia averaged $11.2/mmbtu in July, which was $8.6/mmbtu higher than Henry Hub’s average of $2.6/mmbtu over the same period. However, prices were down by 64.8% y-o-y.

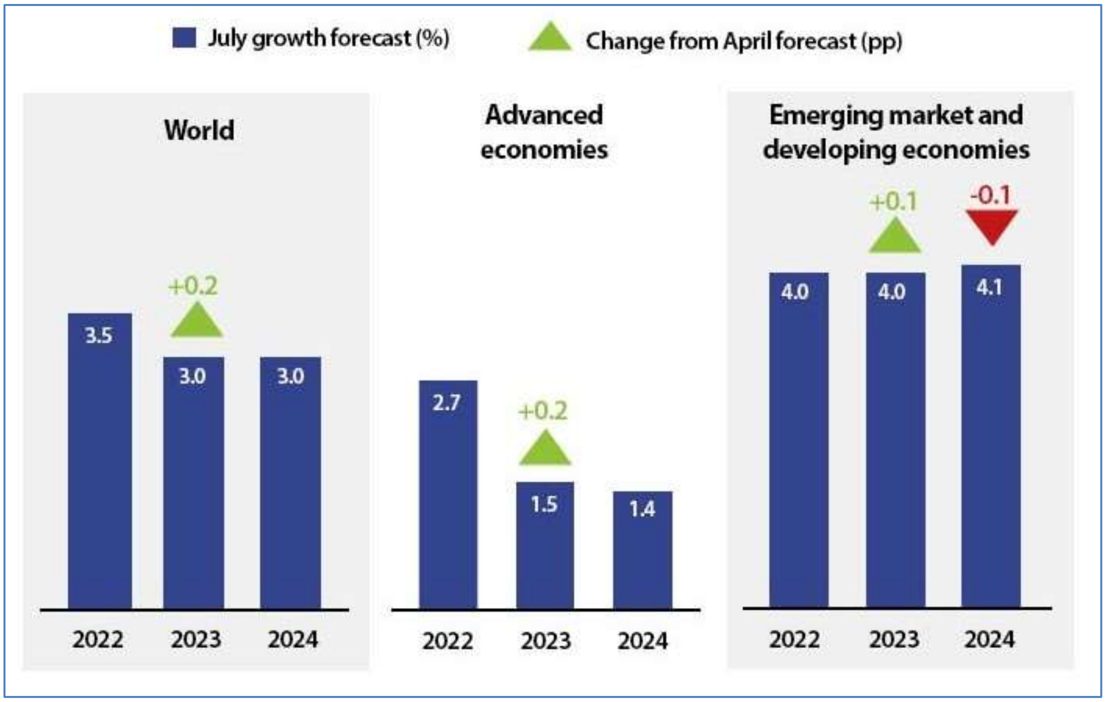
Economy in Focus

1. A snapshot of the global economy

Global economic growth

- According to IMF, the global growth is projected to fall from an estimated 3.5 % in 2022 to 3.0 % in both 2023 and 2024.
- The rise in central bank policy rates to fight inflation continues to weigh on economic activity.
- Further while supply chains have largely recovered, and shipping costs and suppliers’ delivery times are back to pre-pandemic levels, policy tightening by central banks in response to inflation has raised the cost of borrowing, constraining economic activity.
- The impact of higher interest rates extends to public finances, especially in poorer countries grappling with elevated debt costs, constraining room for priority investments. As a result, output losses compared with pre-pandemic forecasts remain large, especially for the world’s poorest nations.

Figure- Global GDP Projections



Source- IMF

- Advanced economies continue to drive the decline in growth from 2022 to 2023, with weaker manufacturing, as the growth falls from 2.7% in 2022-23 to 1.5% in 2023-24.
    - In the United States, growth is projected to slow from 2.1 % in 2022 to 1.8 % in 2023, then slow further to 1.0 % in 2024.
    - Growth in the euro area is projected to fall from 3.5 % in 2022 to 0.9 % in 2023, before rising to 1.5 % in 2024.
- In emerging market and developing economies, the growth outlook is broadly stable for 2023 and 2024, at 4% and 4.1% respectively.
    - Growth in emerging and developing Asia is on track to rise to 5.3 % in 2023, then to moderate to 5.0 % in 2024.
    - IMF projects growth in India at 6.1 % in 2023, reflecting momentum from stronger-than-expected growth in the fourth quarter of 2022 as a result of stronger domestic investment. The forecast for China is unchanged at 5.2 % for 2023 and 4.5 % for 2024.
- Despite these headwinds, global economic activity was resilient in the first quarter of 2023, with that resilience driven mainly by the services sector. The post-pandemic rotation of consumption back toward services is approaching completion in advanced economies

(including in tourism-dependent economies of southern Europe), and it accelerated in several emerging market and developing economies in the first quarter.

- Further, nonservices sectors, including manufacturing, have shown weakness, and high-frequency indicators for the second quarter point to a broader slowdown in activity.
  - Amid softening consumption of goods, heightened uncertainties regarding the future geoeconomic landscape, weak productivity growth, and a more challenging financial environment, firms have scaled back investment in productive capacity.
  - Gross fixed capital formation and industrial production have slowed sharply in major advanced economies, dragging international trade and manufacturing in emerging markets with them.

Figure- World Economic Outlook Projections

		PROJECTIONS	
(Real GDP, annual percent change)	2022	2023	2024
World Output	3.5	3.0	3.0
Advanced Economies	2.7	1.5	1.4
United States	2.1	1.8	1.0
Euro Area	3.5	0.9	1.5
Germany	1.8	-0.3	1.3
France	2.5	0.8	1.3
Italy	3.7	1.1	0.9
Spain	5.5	2.5	2.0
Japan	1.0	1.4	1.0
United Kingdom	4.1	0.4	1.0
Canada	3.4	1.7	1.4
Other Advanced Economies	2.7	2.0	2.3
Emerging Market and Developing Economies	4.0	4.0	4.1
Emerging and Developing Asia	4.5	5.3	5.0
China	3.0	5.2	4.5
India	7.2	6.1	6.3
Emerging and Developing Europe	0.8	1.8	2.2
Russia	-2.1	1.5	1.3
Latin America and the Caribbean	3.9	1.9	2.2
Brazil	2.9	2.1	1.2
Mexico	3.0	2.6	1.5
Middle East and Central Asia	5.4	2.5	3.2
Saudi Arabia	8.7	1.9	2.8

Source- IMF

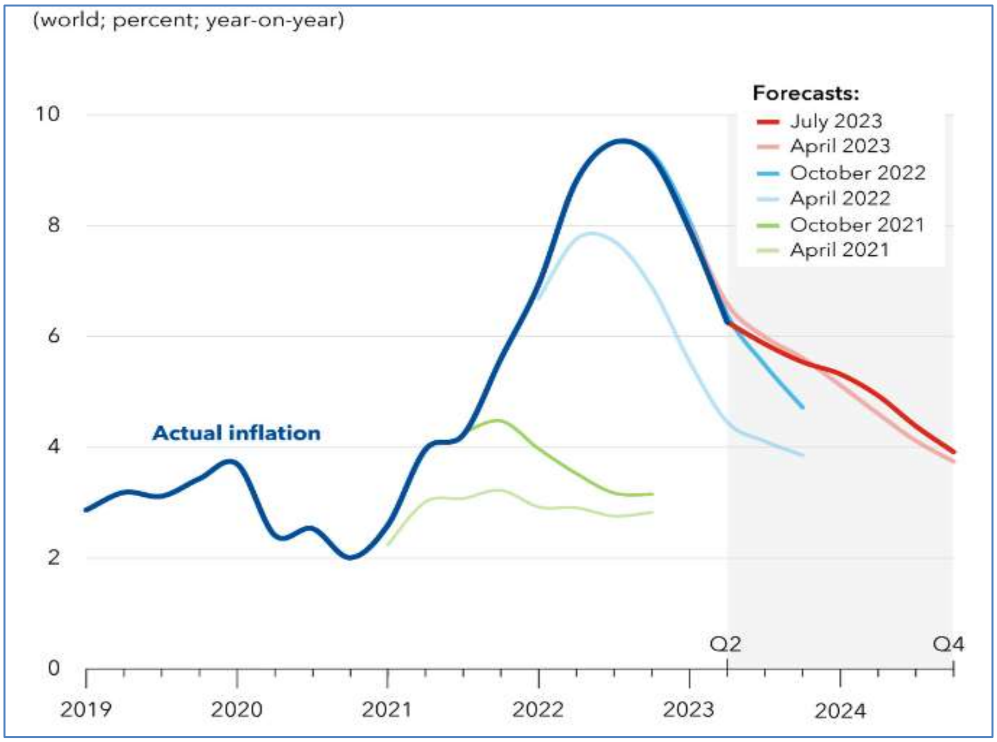
Global Inflation

- According to IMF estimates, global headline inflation is expected to fall from 8.7 % in 2022 to 6.8 % in 2023 and 5.2 % in 2024.

- Core inflation is generally declining more gradually. Globally, it is set to decline from an annual average of 6.5 % in 2022 to 6.0 % in 2023 and 4.7 % in 2024.

- Following the buildup of gas inventories in Europe and weaker-than-expected demand in China, energy and food prices have dropped substantially from their 2022 peaks, although food prices remain elevated.

Figure- Headline inflation



Source- IMF

- In response to the persistence of core inflation, major central banks have communicated that they will need to tighten monetary policy further.
  - The Federal Reserve hiked its rate at its July meeting and the Reserve Bank of Australia, Bank of Canada, Bank of England, and European Central Bank have continued to raise rates.
  - In China, where inflation is well below target, the central bank recently cut policy interest rates.

- The Bank of Japan has kept interest rates near zero under the quantitative and qualitative monetary easing with yield curve control policy.

Global Trade

- According to IMF estimates, world trade growth is expected to decline from 5.2 % in 2022 to 2.0 % in 2023, before rising to 3.7 % in 2024.

- The decline in 2023 reflects not only the path of global demand, but also shifts in its composition toward domestic services, lagged effects of US dollar appreciation—which slows trade owing to the widespread invoicing of products in US dollars—and rising trade barriers.

2. The United States Federal Reserve raised rates by 25 basis points in July, continuing its tightening in hopes of slowing inflation

After putting rate hikes on pause at their June meeting, the US central bank rose interest rates by 25 basis points in July. Following a series of rate increases that now total eleven, the target policy rate is currently at 5.25%–5.5% – the highest it has been in 22 years.

The data revealed ongoing strength in the labor market serving as a headwind to central bank efforts to curb inflation. In July, the Bureau of Labor Statistics reported 209,000 new jobs were added. At the same time unemployment ticked down a notch, coming in at 3.6% vs. 3.7% in May. This distinguishes the current period as the longest period of below 4% unemployment since the 1960s.

Fed Reserve Chair Jerome Powell said the central bank will make data-driven decisions on a "meeting-by-meeting" basis. He said inflation has moderated since the middle of last year, but hitting the Fed's 2% target is still awaited. The consumer price index rose 3% on a 12-month basis in June, after running at a 9.1% rate a year ago. However, CPI is running at a 4.8% rate when excluding food and energy. All these rates are still below 2% target level of Fed.

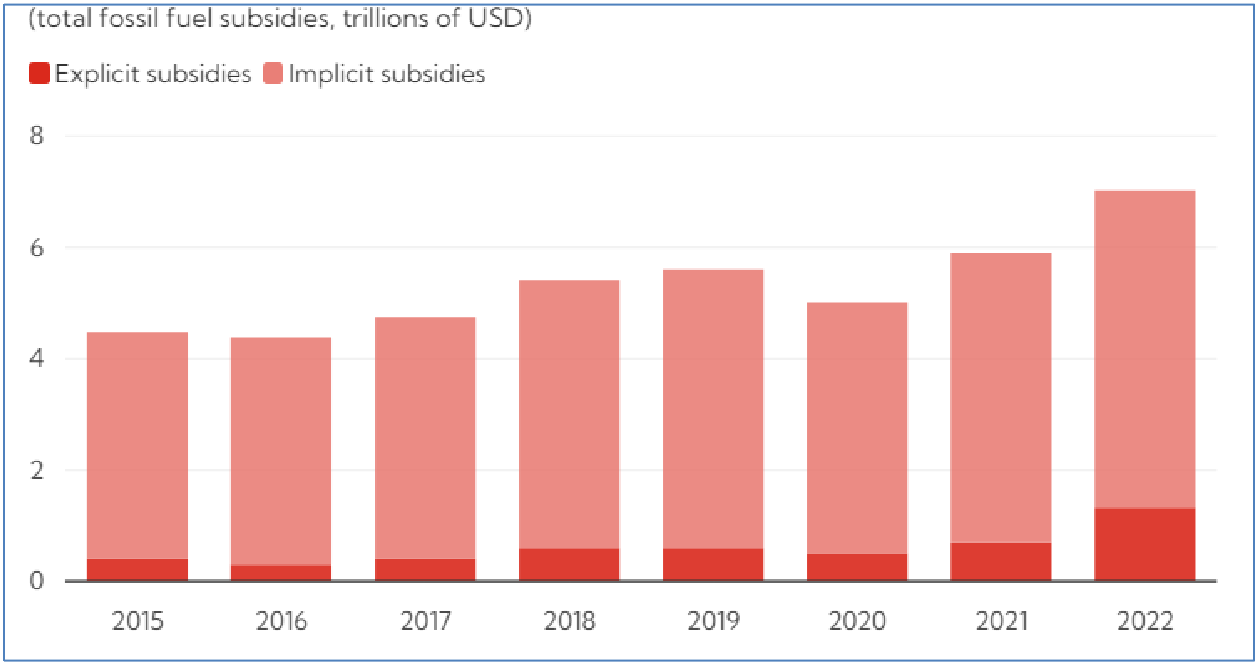
3. Fossil Fuel Subsidies Surged to Record $7 Trillion

Fossil-fuel subsidies surged to a record $7 trillion last year as governments supported consumers and businesses during the global spike in energy prices caused by Russia-Ukraine war and the economic recovery from the pandemic.

As the world struggles to restrict global warming to 1.5 degrees Celsius, subsidies for oil, coal and natural gas are costing the equivalent of 7.1 % of global gross domestic product. That is more than governments spend annually on education (4.3 % of global income) and about two thirds of what they spend on healthcare (10.9 %).

The fossil-fuel subsidies rose by $2 trillion over the past two years as explicit subsidies more than doubled to $1.3 trillion.

Figure- Fossil fuel subsidies topped $7 trillion last year



Source- IMF

Consuming fossil fuels imposes enormous environmental costs—mostly from local air pollution and damage from global warming. Most subsidies are implicit, as environmental costs are often not reflected in prices for fossil fuels, especially for coal and diesel.

These implicit subsidies are projected to grow as developing countries—which tend to have higher-polluting power plants, factories, and vehicles, along with dense populations living and working close to these pollution sources.

If governments removed explicit subsidies and imposed corrective taxes, fuel prices would increase. This would lead firms and households to consider environmental costs when making consumption and investment decisions. The result would be cutting global carbon-dioxide emissions significantly, cleaner air, less lung and heart disease, and more fiscal space for governments.

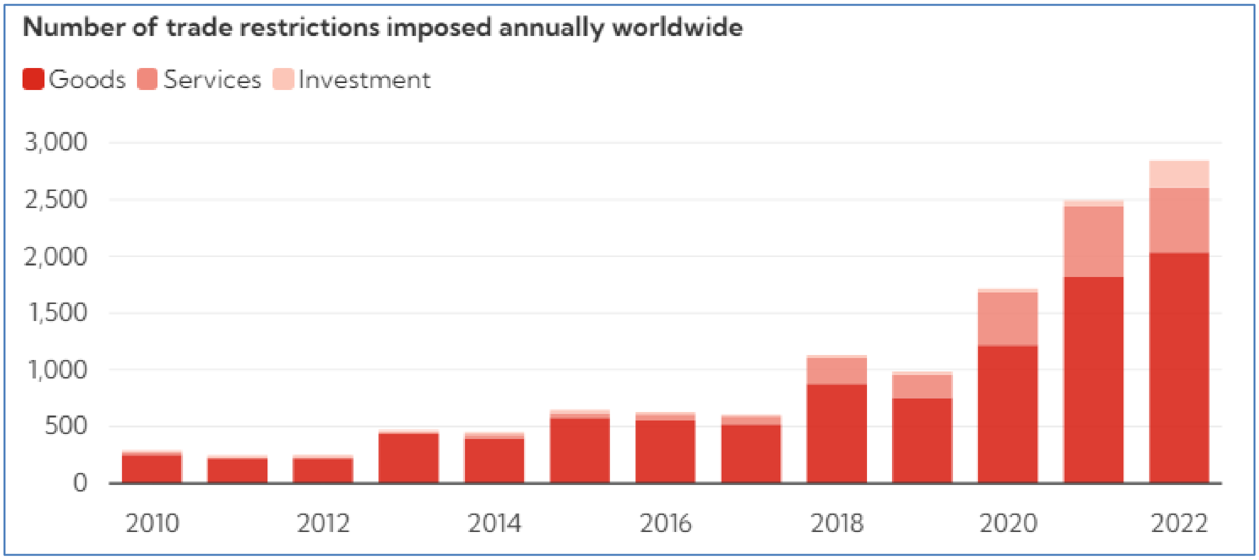
IMF estimates that scrapping explicit and implicit fossil-fuel subsidies would prevent 1.6 million premature deaths annually, raise government revenues by $4.4 trillion, and put emissions on track toward reaching global warming targets. It would also redistribute income as fuel subsidies benefit rich households more than poor ones.

4. High Cost of Global Economic Fragmentation could reduce global economic output by as much as 7 % over the long term, or about $7.4 trillion in current rate dollars. – IMF

According to IMF estimates, as the cost of fragmentation vary, greater international trade restrictions could reduce global economic output by as much as 7 % over the long term, or about $7.4 trillion in current rate dollars. That is equivalent to the combined size of the French and German economies, and three times sub-Saharan Africa's annual output.

International institutions can play a vital role, bringing countries together to help solve global challenges. However, there are signs cooperation is faltering, as new trade barriers introduced annually have nearly tripled since 2019 to almost 3,000 last year.

Figure- Restrictions on trade have increased in recent years



Source- IMF

Other forms of fragmentation—like technological decoupling, disrupted capital flows, and migration restrictions—will also raise costs. In addition, global flows of goods and capital have leveled off since the global financial crisis. IMF research shows geopolitical alignments increasingly influence both foreign direct investment and portfolio flows.

5. Global GDP projected to increase 2.5 pc in 2023: S&P Global Market Intelligence

S&P Global Market Intelligence has revised the global real GDP growth forecast for 2023 to 2.5 %, primarily owing to upward revisions in the US forecast. Earlier, it had predicted global growth at 2.4 %. However, the 2024 global growth forecast is kept unchanged at 2.4 %.

6. BRICS Summit 2023: Advancing Global Cooperation for Mutual Growth and Inclusive Development

This years' BRICS Summit was held from 22-24 August 2023 in Johannesburg, South Africa, after the country took up the one-year rotating chairmanship in January 2023. The theme of the 2023 Summit was: "BRICS and Africa: Partnership for Mutually Accelerated Growth, Sustainable Development and Inclusive Multilateralism."

Brazil, Russia, India, China, and South Africa, together the five BRICS countries account for more than 42% of the world's population, 30% of its territory, 23% of global GDP, and 18% of global trade. Around 67 leaders from the Global South were invited to attend and meet the BRICS leaders in outreach sessions. Heads of 20 international organizations were invited including United Nations Secretary General (UNSG) and African Union (AU) Chairperson. Over 40 countries expressed interest in joining BRICS and 23 countries formally applied to be part of the bloc.

BRICS is a highly diverse group: 3 members, India, Brazil, and South Africa are democracies, while China and Russia are not. BRICS provides India additional opportunities to engage with Russia and China, share its concerns on terrorism with a wider audience, and offer its soft power in medicine, digitalization etc. For China, BRICS remains a key building bloc to its vision of a more Asia centric world or some prefer to call it a Sino-centric one. Through BRICS, Brazil has been able to engage with Asian countries in a major way helping its strategic orientation towards Asia involving not only the government, but the private sector, the media, academia, and society.

Speaking at the Summit, Honorable PM Narendra Modi called for a strengthened BRICS that will be (B) breaking barriers, (R) revitalizing economies, (I) inspiring innovation, (C) creating opportunities, and (S) shaping the future. He offered Indian Digital Public infrastructure to BRICS partners. He also proposed undertaking skill mapping, skilling and promoting mobility among BRICS countries. The visit coincided with the successful soft landing of Chandrayaan 3 on the South Pole of the moon, a global first; during the Summit PM Modi proposed creation of a BRICS Space exploration Consortium.

PM Modi focused on the success of BRICS over the past 15 years, specifically the New Development Bank (NDB), and the safety net of contingent reserve management. During the Summit, the NDB signed a loan agreement for a water project in Lesotho. PM Modi called for time bound reforms of the world's political and financial institutions including the UNSC and WTO. He urged BRICS to send a global message of unity and not polarization.

BRICS leaders reached consensus during the Summit and in the first phase of the expansion process decided to invite Egypt, Ethiopia, Iran, Argentina, UAE, and Saudi Arabia to join from January 1, 2024. Next year, Russia will assume the BRICS Chair with the expected theme of 'strengthening multilateralism for global development and security.' 200 political, economic, and public events are planned before the Summit in October 2024.

7. Indian Economy

India's economic growth

According to S&P Global, the Indian economy is expected to grow at an average rate of 6.7 % between fiscal 2023-24 (FY24) to fiscal 2030-2031 (FY31). India's gross domestic product (GDP) is likely to rise to $6.7 trillion to FY31 from $3.4 trillion in FY23, said S&P Global in its August volume report titled ''Look Forward, India Moment''.

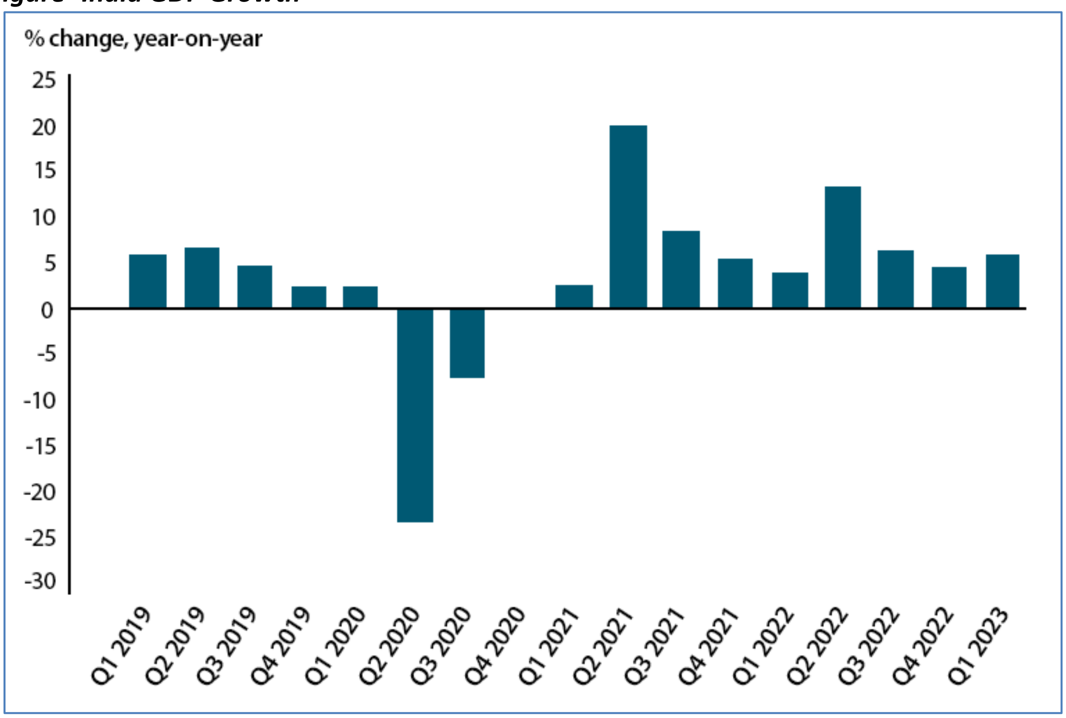
S&P Global said that India's short-term economic growth will be driven by a 678.6 million strong labor force, and an immense opportunity to increase its share of global manufacturing exports, in line with the government's aim to raise manufacturing to 25 % of GDP by 2025 from the current levels of 17.7 %.

Already the third largest consumer of energy globally, India's per capita energy consumption remains just one tenth that of the United States, according to the report. S&P Global Commodity Insights expects the country's total energy demand to double by 2050.

S&P Global also made following observations for India growth during first half of FY 2023-24: -

- Recent economic indicators for India during the first half of 2023 continue to signal expansionary economic conditions driven by domestic demand. Steel production rose by 11.9% y/y in the April-June quarter, while consumption of steel rose by 10.2% y/y.
- Sales of commercial vehicles rose sharply higher in FY2022-23, increasing by 34.3% y/y, while sales of private vehicles rose by 18.7% y/y in FY2022-23.
- The index of industrial production recorded growth of 4.5% y/y in the April-June quarter, while manufacturing output rose by 4.7% y/y in the same quarter.
- In the April-June quarter of 2023, production of capital goods rose by 4.9% y/y, while production of infrastructure and construction goods rose by 14.0% y/y.

Figure- India GDP Growth



Source- S&P Global

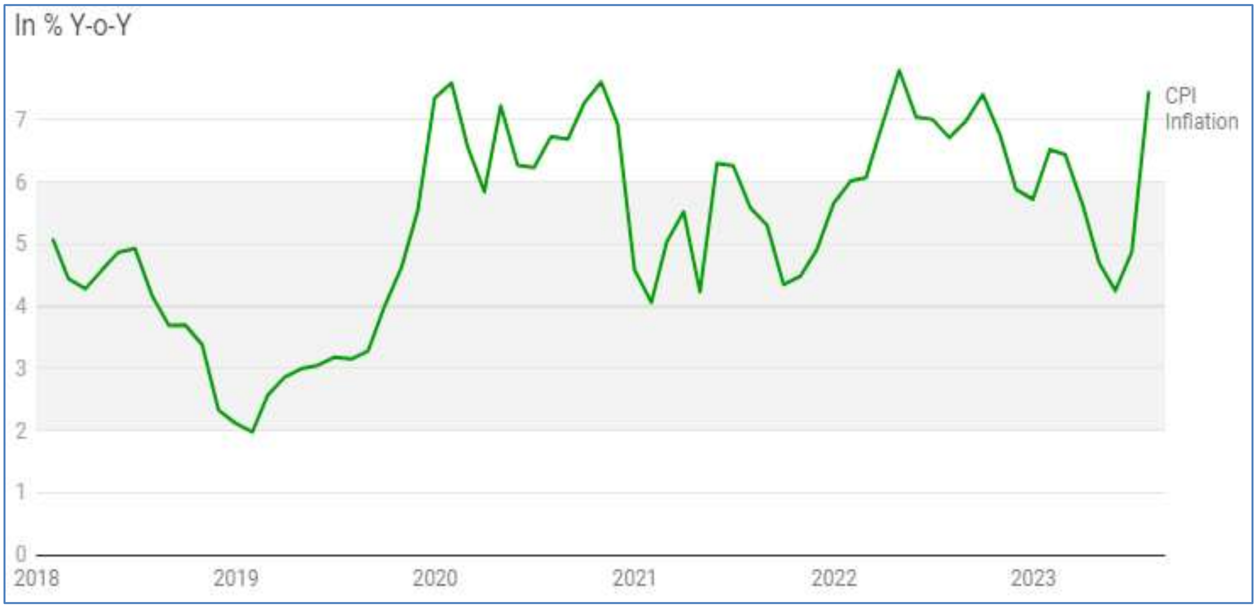
Inflation in India

- The Consumer Price Index-based inflation stood at 7.44% in July compared with 4.87% in June, according to data from the Ministry of Statistics and Programme Implementation

- Food and beverage inflation rose to 10.57% during the month from 4.6% in the previous month.

- Consumer price inflation exceeded the central bank's target range of 4 (+/- 2) % for the first time since February this year. The spike in vegetable prices, led by tomatoes, would exert sizeable upside pressures on the near-term headline inflation trajectory, the Monetary Policy Committee had said.

Figure- CPI Inflation



Source- Bloomberg

- On a sequential basis as well, vegetables led the spike, with prices rising by 38.1% in July as compared with June. Cereals, pulses, fruits, and spices continued to see a sequential rise in prices. Among food items, meat, eggs, oils, and fats saw a sequential decline.

- Point to point rate of inflation based on the CPI-Agricultural laborer's and CPI-Rural laborers stood at 7.43% and 7.26% in July, 2023 compared to 6.31% and 6.16% respectively in June, 2023 and 6.60% & 6.82% respectively during the corresponding month of the previous year. Similarly, Food inflation stood at 8.88% and 8.63% in July, 2023 compared to 7.03% and 6.70% respectively in June, 2023 and 5.38% & 5.44% respectively during the corresponding month of the previous year.

RBI stance on inflation

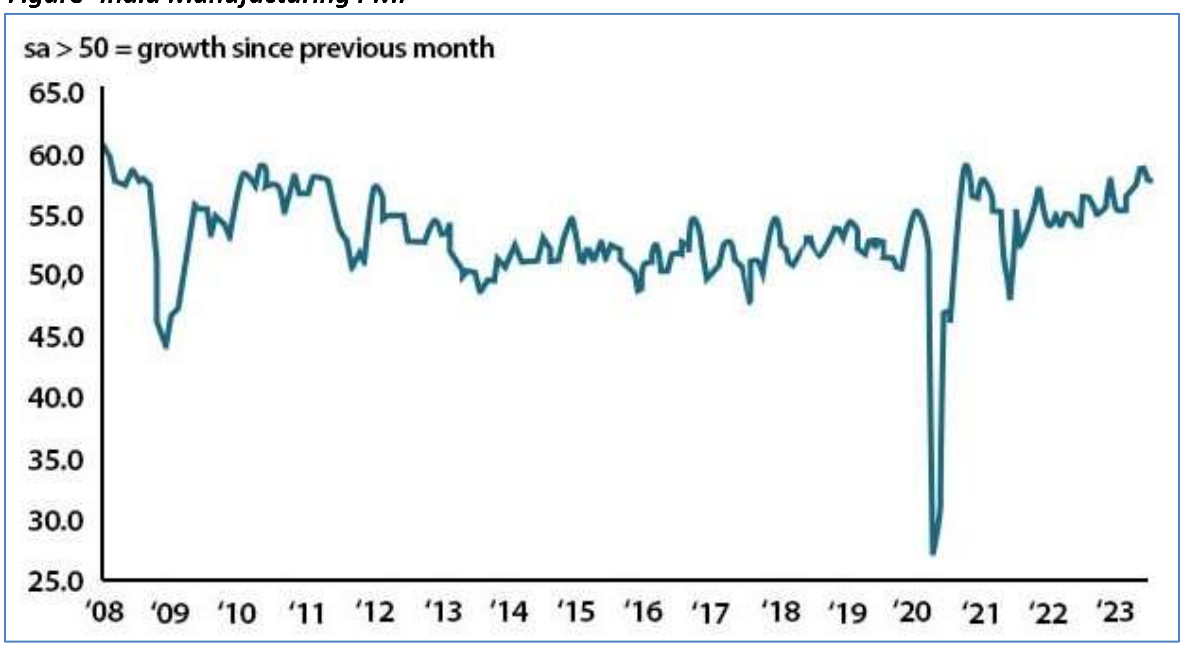
The Reserve Bank of India (RBI) in its August Monetary Policy Statement raised its projected CPI inflation rate for the current fiscal year (2023-24) to 5.4%, compared with its 5.1% y/y projection made in the June Monetary Policy Statement.

The RBI's August Monetary Policy Statement had expected that the headline CPI inflation rate would likely witness a spike in coming months on account of disruptions to food production due to adverse weather conditions. The RBI also noted risks to food production from the impact of the skewed south-west monsoon so far, as well as upward pressures on food prices due to a possible El Niño event as well as geopolitical hostilities.

India PMI

The seasonally adjusted S&P Global India Manufacturing Purchasing Managers' Index (PMI) posted 57.7 in July, broadly in line with the reading of 57.8 in June. The index signaled continued robust expansion in the manufacturing sector. Business conditions have now strengthened in each of the past 25 months.

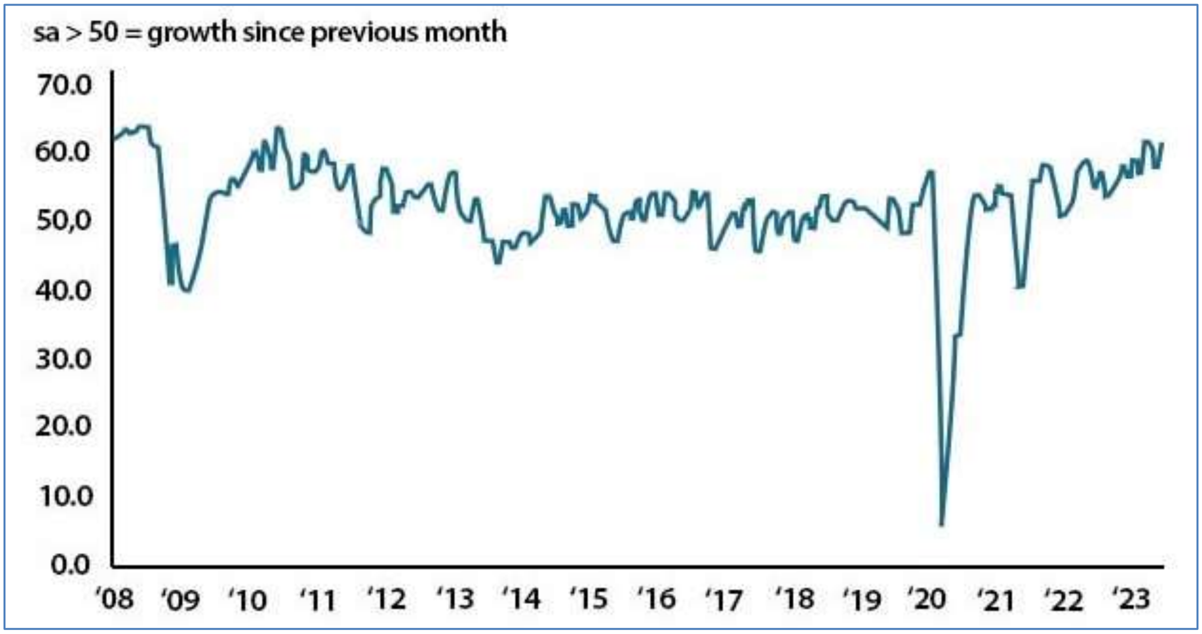
Figure- India Manufacturing PMI



Source- S&P Global

Rising from 58.5 in June to 62.3 in July, the seasonally adjusted S&P Global India Services PMI Business Activity Index signaled the sharpest increase in output since June 2010. The upturn was largely attributed to demand strength and new business gains.

Figure- India Services Business Activity Index



Source- S&P Global

Unemployment in India

- According to the recent Bloomberg report for July, the overall unemployment rate in India is 7.95 percent as of July 2023 from 8.45% in June 2023.
- Rural unemployment rate fell to 7.89%, from 8.73% in June, while urban unemployment rate ticked up, to 8.06% from 7.87% in the same period.
- India's overall unemployment rate fell in July as rural areas saw increased demand for agriculture labor with the onset of monsoon rain.

India's external position

India's foreign trade position

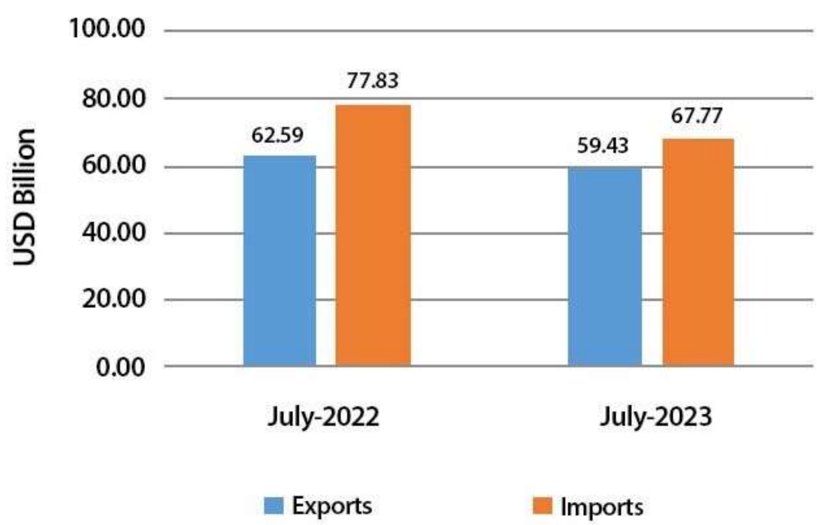
- India's overall exports (Merchandise and Services combined) in July 2023 is estimated to be USD 59.43 Billion, exhibiting a negative growth of (-) 5.06 % over July 2022.
- Overall imports in July 2023 are estimated to be USD 67.77 Billion, exhibiting a negative growth of (-) 12.92 % over July 2022.

Figure- Trade during July 2023

		July 2023 (USD Billion)	July 2022 (USD Billion)
Merchandise	Exports	32.25	38.34
	Imports	52.92	63.77
Services*	Exports	27.17	24.26
	Imports	14.85	14.06
Overall Trade (Merchandise +Services) *	Exports	59.43	62.59
	Imports	67.77	77.83
	Trade Balance	-8.35	-15.24

Source- RBI

Figure- Overall trade during July 2023



Source- RBI

- For the month of July 2023, under merchandise exports, 11 of the 30 key sectors exhibited growth in July 2023 as compared to same period last year (July 2022). These include Iron Ore (962.82%), Oil Meals (34.24%), Oil Seeds (32.83%), Ceramic Products & Glassware (20.82%), Fruits & Vegetables (18.94%), Electronic Goods (13.09%), Coffee (11.9%), Cotton Yarn/Fabs. /Made-Ups, Handloom Products Etc. (6.62%), Rice (5.38%), Cereal Preparations & Miscellaneous Processed Items (2.56%) and Drugs & Pharmaceuticals (0.09%).

- Exports of Electronic goods increased by 13.09 percent during July 2023 at USD 2.05 Billion as compared to USD 1.81 Billion in July 2022. During April-July 2023 electronic goods exports were recorded at USD 9.01 Billion as compared to USD 6.55 Billion during April-July 2022, registering a growth of 37.60 percent. Enabling policies facilitating greater investment in electronics, mobile manufacturing, etc. has resulted in visible growth in these sectors.

- Under merchandise imports, 16 out of 30 key sectors exhibited negative growth in July 2023. These include Silver (-97.17%), Project Goods (-69.48%), Cotton Raw & Waste (-54.24%), Coal, Coke & Briquettes, Etc. (-47.2%), Fertilisers, Crude & Manufactured (-41.48%), Pearls, Precious & Semi-Precious Stones (-38.37%), Petroleum, Crude & Products (-36.65%), Newsprint (-32.07%), Organic & Inorganic Chemicals (-26.13%), Textile Yarn Fabric, Made-Up Articles (-24.67%), Leather & Leather Products (-19.35%), Vegetable Oil (-19.01%), Fruits & Vegetables (-17.58%), Wood & Wood Products (-13.13%), Artificial Resins, Plastic Materials, Etc. (-11.93%) and Metalliferous Ores & Other Minerals (-1.51%).

- India’s trade deficit has shown considerable decline in April-July 2023. Overall trade deficit for April-July 2023* is estimated at USD 28.26 Billion as compared to the deficit of USD 46.72 Billion during April-July 2022, registering a decline of (-) 39.52 percent. The merchandise trade deficit during April-July 2023 was USD 76.98 Billion compared to USD 87.99 Billion during April-July 2022, registering a decline of (-) 12.51 percent.

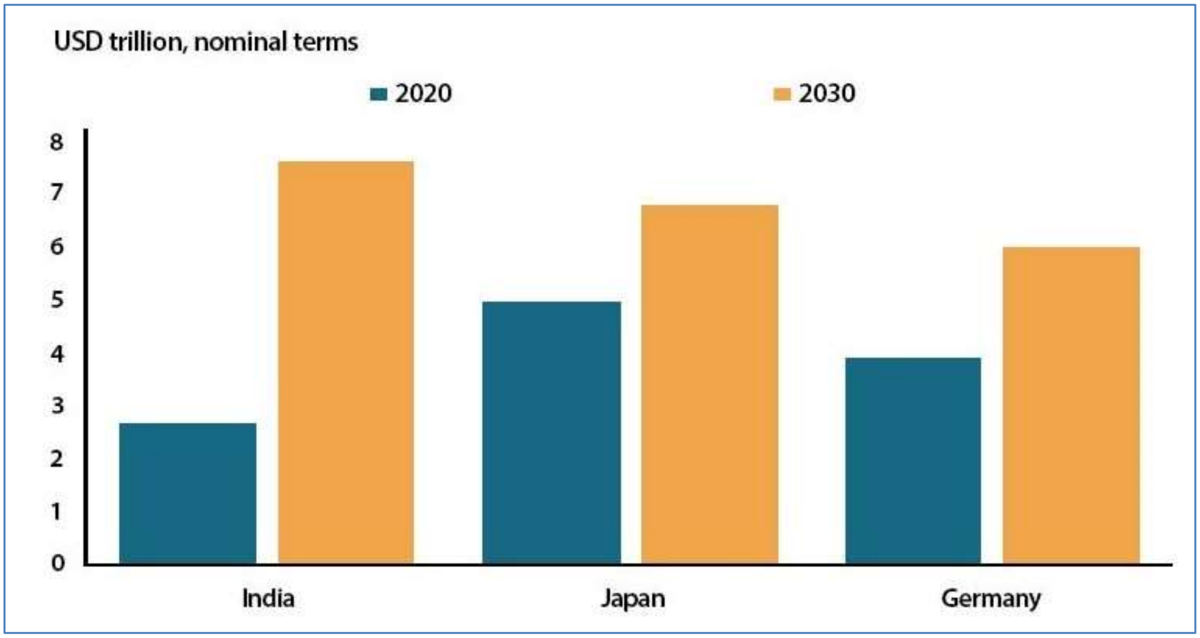
8. Indian economic outlook-S&P Global

- After two years of rapid economic growth in 2021 and 2022, the near-term economic outlook is for continued rapid expansion during 2023-24, underpinned by strong growth in private consumption and investment, according to S&P Global estimates.

- The acceleration of foreign direct investment inflows into India over the past decade reflects the favorable long-term growth outlook for the Indian economy, helped by a youthful demographic profile and rapidly rising urban household incomes.

- India's nominal GDP measured in USD terms is forecast to rise from USD 3.5 trillion in 2022 to USD 7.3 trillion by 2030. This rapid pace of economic expansion would result in the size of the Indian GDP exceeding Japanese GDP by 2030, making India the second largest economy in the Asia-Pacific region. By 2022, the size of Indian GDP had already become larger than the GDP of the UK and France. By 2030, India's GDP is also forecast to surpass Germany.

Figure- India's GDP to surpass Japan and Germany by 2030



Source- S&P Global

- The long-term outlook for the Indian economy is supported by several key growth drivers. An important positive factor for India is its large and fast-growing middle class, which is helping to drive consumer spending. The rapidly growing Indian domestic consumer market as well as its large industrial sector have made India an increasingly important investment destination for a wide range of multinationals in many sectors, including manufacturing, infrastructure, and services.

- The digital transformation of India that is currently underway is expected to accelerate the growth of e-commerce, changing the retail consumer market landscape over the next decade. This is attracting leading global multinationals in technology and e-commerce to the Indian market.

- The large increase in FDI inflows to India that has been evident over the past five years is also continuing with strong momentum evident even during the pandemic years of 2020-2022. India's strong FDI inflows have been boosted by large inflows of investments from global technology MNCs that are attracted to India's large, fast-growing domestic consumer market, as well as a strong upturn in foreign direct investment inflows from manufacturing firms.

- Overall, India is expected to continue to be one of the world's fastest growing economies over the next decade. This will make India one of the most important long-term growth markets for multinationals in a wide range of industries, including manufacturing industries such as autos, electronics, and chemicals to services industries such as banking, insurance, asset management, health care and information technology.

9. Aatmanirbhar Bharat Rozgar Yojana (ABRY) Surpasses Employment Generation Target

The Central Government's innovative employment incentive scheme, the Aatmanirbhar Bharat Rozgar Yojana (ABRY), has exceeded its initial employment generation goals, showcasing its success in fostering job creation and recovery during the COVID-19 pandemic.

Launched effectively from October 1, 2020, the ABRY was designed to stimulate the creation of new job opportunities by extending financial support to employers of establishments registered with the Employees' Provident Fund Organization (EPFO). This scheme aimed to incentivize employment of unemployed individuals, including those who lost their jobs due to the pandemic, by covering both the employee and employer contributions (24% of wages) for establishments with up to 1000 employees. For establishments with over 1000 employees, only the employee's EPF contributions (12% of wages) were covered in respect of new employees.

The scheme, which remained open for registrations until March 31, 2022, had set a target to benefit approximately 7.18 million employees across India. As of July 31, 2023, the ABRY has already achieved an enrolment of over 7.58 million new employees, surpassing its initial employment generation target.

To date, a total of 1,52,380 establishments, employing 60,44,155 new employees and upon fulfilling all the eligibility conditions, have availed benefits amounting to a sum of Rs. 9,669.87 Crore under the ABRY scheme. The schemes ensure the disbursements of benefits to specific eligibility criteria, met by beneficiary establishments and employees on a month-to-month basis.

The scheme's emphasize substantial contribution to the job market's revival, underscoring its role in boosting economic recovery during these challenging times.

10. India's net-zero goals by 2050 offers $12.7-trillion investment opportunity: BNEF

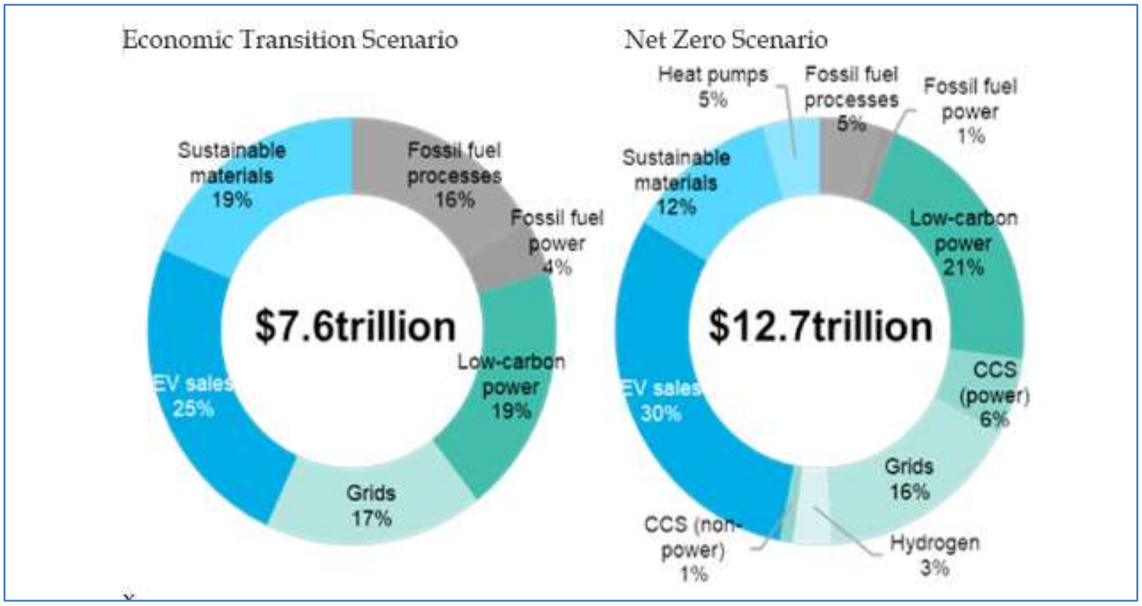
India's transition to a net-zero economy by 2050 presents an investment opportunity amounting to at least $12.7 trillion, according to the ***New Energy Outlook: India*** **report published by Bloomberg New Energy Finance (BloombergNEF).**

The report details two scenarios for India's energy system and the implications of the country's transition opportunities and challenges. The baseline Economic Transition Scenario describes an economics-led transition without emission constraints. Under this scenario, the country makes significant progress toward energy independence and decarbonization but does not achieve either goal by 2050.

The second, the net-zero scenario, envisages enhanced government support and private-sector investment. It is consistent with net-zero emissions by 2050 with no reliance on unproven technologies. It enables India to achieve its mid-century energy independence goal at the lowest cost.

India added 53 GW of solar and wind between 2018 and 2022, of which 16 GW of utility-scale solar was installed in 2022 alone. Yet, solar and wind still account for less than a quarter of India's power generation capacity, with coal dominating the rest. As a result, India's electricity generation remains the country's largest source of emissions.

Figure- India investment in energy supply and demand, 2022-2050



Source- Bloomberg NEF

BloombergNEF's analysis finds that maximizing the deployment of solar and wind, supplemented by additions of nuclear, energy storage, and carbon capture and storage (CCS) for thermal power plants, is the cheapest way for India to increase electricity access while decarbonizing its power supply.

New wind and solar power plants in India have already achieved a lower levelized cost of electricity generation than new thermal power plants. The cost of electricity generation from new solar and wind power plants will become cheaper than the running cost of existing coal plants by the mid-2030s.

In the net-zero scenario, the total installed capacity of wind and solar power undergoes a 30-fold expansion, from 99 GW in 2021 to 2,998 GW by 2050. Together, wind and solar generation account for 80% of electricity supplied in 2050, while nuclear provides 9%. The remainder is met by hydro, biomass, hydrogen-fired thermal plants, and thermal power plants equipped with CCS. Under the economic transition scenario, investment in energy supply and demand will reach $7.6 trillion over 2022-50, with an annual average of $262 billion.

To stay on track for net zero, according to Bloomberg NEF's net-zero scenario, investment levels are 1.7 times higher at an annual average of $438 billion and a total of $12.7 trillion to 2050. Total investment in fossil-fuel power drops from $317 billion in the economic transition scenario to $142 billion in the net zero scenario. To abate emissions from the remaining use of fossil fuels in the net-zero scenario, India needs $870 billion in investment for CCS. Electric vehicle sales account for the largest share of investment for energy demand in both scenarios. In the net-zero scenario, $3.9 trillion is spent deploying EVs.

Lessons from Economics

Blue economy and its sustainability

The health of India's marine ecosystems is under strain due to pollution and habitat degradation. The State of India's Environment (SoE) report estimates that about 20 per cent of the country's coral reefs have been destroyed, primarily due to pollution and climate change. Overfishing is a major concern in Indian waters, jeopardizing fish stocks and the livelihoods of coastal communities. The Food and Agriculture Organization (FAO) reported that around 60 per cent of fish stocks in the Indian Ocean are fully exploited, overexploited, or depleted.

India's blue economy, estimated to be around $1 trillion, plays a significant role in the nation's economic growth and livelihoods, as it encompasses a wide range of sectors such as fisheries, shipping, tourism, renewable energy, and more. The World Bank defines the blue economy as the sustainable use of ocean resources for maintaining the health of ocean ecosystems while contributing to economic growth, livelihood improvements and job creation. The European Commission extends this definition to encompass all financial activities related to oceans, seas, and coasts under the umbrella of the blue economy, thereby indicating its interconnectedness and its coverage of a wide range of developing sectors. As the nation grapples with the challenges of climate change, it is crucial to prioritize climate resilience and take bold steps towards mitigating the detrimental effects of ocean pollution. Central to this mission is a paradigm shift in mindset, particularly with regards to the disposal of plastics.

India is grappling with the impact of marine pollution, particularly plastic waste. According to a study by the Central Marine Fisheries Research Institute (CMFRI), India generates approximately 26,000 tonnes of plastic waste daily, a significant portion of which finds its way into the oceans.

Blue economy at a broader global level

Among the United Nations' Sustainable Development Goals (SDGs), "SDG 14: Life below water" focuses on the conservation and sustainable use of oceans, seas, and marine resources, presenting a framework for addressing these challenges. The goal of SDG 14 is to establish healthy oceans and seas while promoting economic growth, social inclusiveness and the preservation or enhancement of livelihoods.

Climate change, undoubtedly one of the Earth's greatest challenges, continues to top the list of crises that demand solutions. The most significant impacts of climate change on the blue economy include- ocean acidification, rising sea levels, extreme weather events such as heatwaves, droughts and storms leading to water shortages and creating challenging environment for fishing and aquaculture industries.

Remedies to the problem

- To address this issue, it is imperative that we foster a culture of waste separation at the source. Starting from childhood, we must instill in future generations the value of zero landfill usage, rapid conversion of waste into wealth, and harnessing landfill emissions to produce usable biogas.
- To effectively combat ocean pollution, we must adopt a comprehensive approach that includes robust monitoring and measurement systems. Identifying and addressing the sources of pollution at their core is vital. While downstream actions, such as cleaning up waste, are commendable, upstream interventions hold even greater potential for long-term impact.
- While addressing the consequences of pollution is important, we must also proactively tackle the sources of contamination. By fostering innovation and encouraging research and development, we can create efficient waste management systems and promote responsible consumption practices. This will not only clean up our oceans but also stimulate economic growth and create new avenues for wealth generation.
- Like green bonds, which are already in high demand globally, India has also included blue bonds within the framework of national sustainable finance. In this context, the framework for blue bonds has been established as sustainable financing instruments for the sustainable maritime sector, including sustainable fisheries, sustainable water management.

India is leading the effort to implement a blue economic policy, which envisions the optimal utilization of all maritime domain sectors (living, non-living resources, tourism, and ocean energy) for sustainable coastal development.

India is also implementing the deep ocean mission, which includes six thematic areas to support these blue economy initiatives. Thus, a sustainable blue economy holds immense importance for India and the world. By harnessing India’s maritime potential and developing a collective roadmap with other nations, we can achieve inclusive growth, environmental conservation, and climate resilience.

Oil Market

Crude oil price – Monthly Review

Global oil prices moved steadily higher during July and into early August, reflecting a market tightening. Deepening OPEC+ supply cuts collided with improved macroeconomic sentiment and all-time high world oil demand. North Sea Dated rose by $10/bbl over the month to around $85/bbl, its highest since April. With output cuts hitting the heavy sour crude market hard, Dubai crude is trading at a rare premium to Brent, while the price of Urals crude has breached the G7-led price cap now making all Russian oil exports ineligible for G7 and EU maritime services.

Crude spot prices rose on average m-o-m in July driven by higher futures prices and stronger physical crude supply/demand fundamentals. Robust buying in the spot market including for near-term loading volumes for July and August trading cycles, concurrent with higher refinery intakes in July and firm demand from Asian buyers, including Chinese refiners supported spot prices. There were lower crude loading programs in several regions. Spot prices were further buoyed by higher refining margins in all major refining hubs, specifically diesel and gasoline. North Sea Dated benchmark rose firmly m-o-m buoyed by demand from European refiners and a favourable west-to-east arbitrage that raised demand for Brent-related crude from Asia refiners and lowered supply availability in the Atlantic Basin.

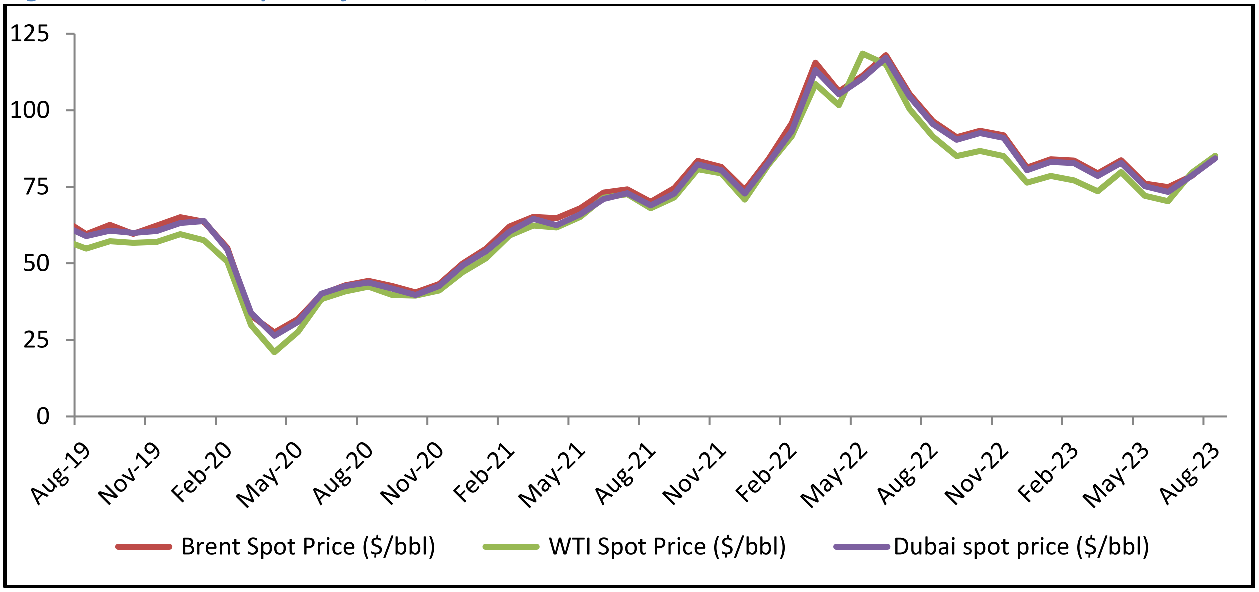
Crude oil futures prices bounced back in July from low levels recorded in June, as selling pressure in futures markets ceased and market sentiment turned optimistic about improving global oil market fundamentals in the second half of 2023. Moreover, the expectations that central banks were approaching the end of their monetary tightening cycles, the sharp decline of the US dollar in the first half of July and expectations of economic stimulus in China added to the positive sentiment in financial markets.

Hedge funds and other money managers recovered a large part of their combined futures and options net long positions in July, after significantly cutting their bullish positions in May and June, mirroring an improved market sentiment and a change in speculators' strategy. Money managers rush to cover short positions built in the previous month, which contributed to pushing oil futures prices higher. The rise of net long positions was mainly due to the large drop in short positions.

The OPEC Reference Basket (ORB) value averaged higher m-o-m in July. This was amid firm gains in related crude benchmarks and higher official selling prices (OSP) of all medium and heavy components exported to Asia, the US and Europe markets. In July, the ORB increased by $5.87, or 7.8%, to settle at $81.06/b. On a yearly average, however, the ORB was down by $26.25, or 24.8%, at $79.56/b.

Brent crude ranged an average to $85.05 a barrel and WTI ranged to $81.34 per barrel in the month of August.

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



Source: World Bank

- Brent crude price averaged $85.05 per bbl in August 2023, up by 8.3% on a month on month (MoM) and down by 11.7% on year on year (YoY) basis, respectively.
- WTI crude price averaged $85.12 per bbl in August 2023, up by 7.0% on a month on month (MoM) and down by 6.8% on year on year (YoY) basis, respectively.
- Dubai crude price averaged $84.26 per bbl in August 2023, up by 7.1% on a month on month (MoM) and down by 11.8% on year on year (YoY) basis, respectively.

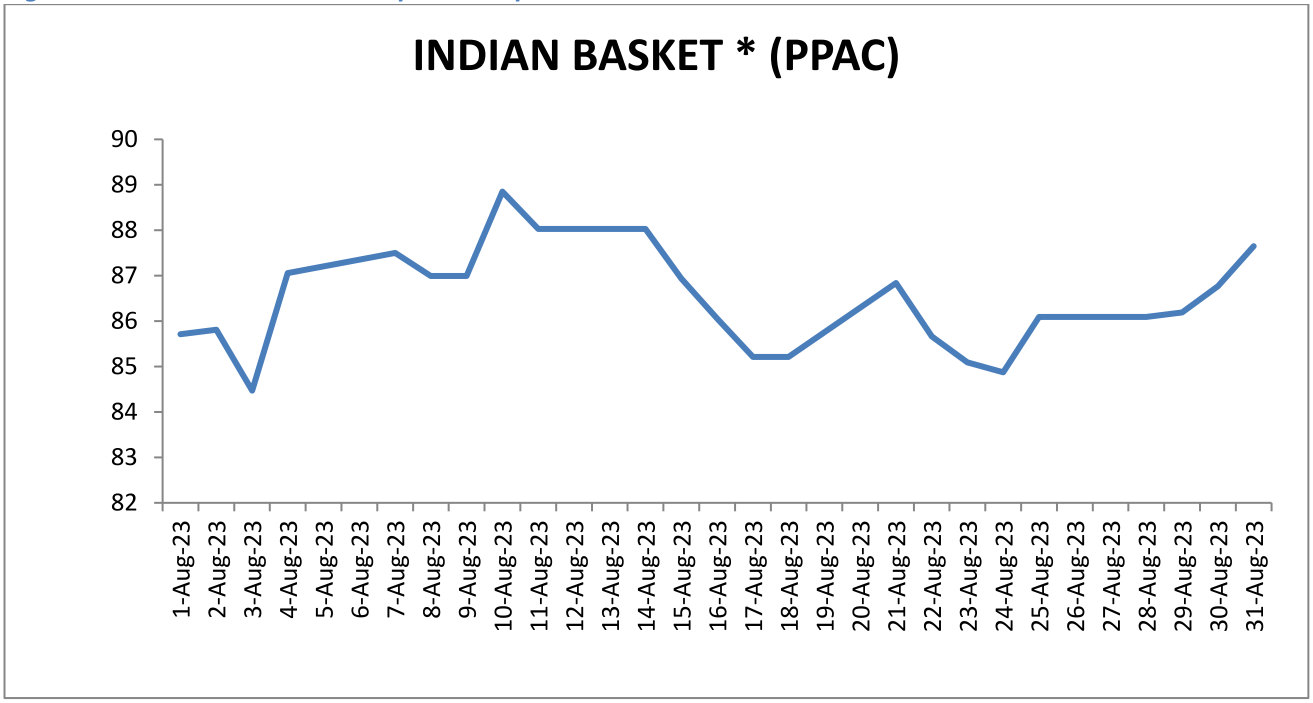
Table 1: Crude oil price in August, 2023

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	85.05	8.3%	-11.7%
WTI	85.12	7.0%	-6.8%
Dubai	84.26	7.1%	-11.8%

Source: World Bank

Indian Basket Crude oil price

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



Source: PPAC

- Indian crude basket price averaged $86.43 per barrel in August 2023, up by 7.9% on Month on Month (M-o-M) and down by 10.7% on a year on year (Y-o-Y) basis, respectively.

Oil production situation

- World oil supply plunged by 910 kb/d to 100.9 mb/d in July. A sharp reduction in Saudi production in July saw output from the OPEC+ bloc fall 1.2 mb/d to 50.7 mb/d, while non-OPEC+ volumes rose 310 kb/d to 50.2 mb/d. Global oil output is projected to expand by 1.5 mb/d to a record 101.5 mb/d in 2023, with the US driving non-OPEC+ gains of 1.9 mb/d. Next year, non-OPEC+ supply is also set to dominate world supply growth, up 1.3 mb/d while OPEC+ could add just 160 kb/d.

- Russian oil exports held steady at around 7.3 mb/d in July, as a 200 kb/d decline in crude oil loadings was offset by higher product flows. Crude exports to China and India eased m-o-m but accounted for 80% of Russian shipments. Higher oil prices, combined with narrowing discounts for Russian grades, pushed estimated export revenues up by $2.5 bn to $15.3 bn, $4.1 bn below year-ago levels.

- In July, oil supply from the OPEC+ alliance fell by 1.2 mb/d to a near two-year low as a voluntary reduction from Saudi Arabia came into effect. At 50.7 mb/d, the bloc's production was down more than 2 mb/d from the start of the year. Over the same period, producers outside the group ramped up output by 1.6 mb/d to 50.2 mb/d but limited non-OPEC+ gains are expected for the remainder of the year. The US, Brazil and Guyana lead the expansion, with exports from the trio rising by roughly 15% y-o-y to more than 9 mb/d in July, boosting the availability of light sweet grades in the Atlantic Basin. The US accounts for nearly 80% of global 2023 supply growth, or 1.2 mb/d of the 1.5 mb/d total. Next year, that share is set to slip as activity slows in the shale patch.

Table 2: Non-OPEC liquids production in 2023, mb/d

Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023
Americas	26.87	27.90	27.97	28.25	28.45	28.14
of which US	*19.23*	*20.10*	*20.56*	*20.34*	*20.45*	*20.36*
Europe	3.57	3.66	3.62	3.80	3.94	3.75
Asia Pacific	0.48	0.45	0.45	0.48	0.47	0.46
Total OECD	**30.92**	**32.01**	**32.04**	**32.53**	**32.86**	**32.36**
China	4.48	4.63	4.63	4.50	4.50	4.56
India	0.77	0.76	0.78	0.79	0.78	0.78
Other Asia	2.30	2.31	2.27	2.34	2.36	2.32
Latin America	6.34	6.69	6.76	6.70	6.79	6.74
Middle East	3.29	3.27	3.29	3.29	3.30	3.29
Africa	1.29	1.24	1.28	1.33	1.31	1.29
Russia	11.03	11.20	10.85	9.93	9.57	10.38
Other Eurasia	2.83	3.00	2.93	2.98	2.98	2.97
Other Europe	0.11	0.11	0.11	0.11	0.11	0.11
Total Non-OECD	**32.44**	**33.22**	**32.89**	**31.96**	**31.70**	**32.44**
Total Non-OPEC production	63.36	65.23	64.92	64.49	64.56	64.80
Processing gains	2.40	2.47	2.47	2.47	2.47	2.47
Total Non-OPEC liquids production	**65.76**	**67.70**	**67.39**	**66.96**	**67.03**	**67.27**
Previous estimate	**65.73**	**67.69**	**67.39**	**66.51**	**67.00**	**67.14**
Revision	0.02	0.00	0.01	0.04	0.03	0.12

Source: OPEC

- From the above table, it can be inferred, that the total non-OPEC liquids production is expected to reach 67.27 mb/d by 2023.
- OPEC NGLs and non-conventional liquids production in 2023 is forecast to grow by around 50 tb/d to an average of 5.4 mb/d.
- OPEC-13 crude oil production averaged 27.31 mb/d in July 2023, lower by 836 tb/d m-o-m.

Oil demand situation

- World oil demand hit a record 103 mb/d in June 2023. After months of lacklustre readings, OECD demand was revised up for May and June, with overall consumption returning to growth in 2Q23 after two quarters of contraction. Chinese demand was also stronger than forecasted, reaching fresh highs despite persistent concerns over the health of the economy. For the year, global oil demand looks to be on track to expand by 2.2 mb/d to 102.2 mb/d, its highest ever annual level. With the post-pandemic recovery having largely run its course and as the energy transition gathers pace, growth will slow to 1 mb/d in 2024.

- Key factors that help boost the world oil demand includes strong summer air travel, increased oil use in power generation and surging Chinese petrochemical activity. Globally oil demand is set to expand by 2.2 mb/d to 102.2 mb/d in 2023, with China accounting for more than 70% of growth. With the post-pandemic rebound running out of steam, and as lacklustre economic conditions, tighter efficiency standards and new electric vehicles weigh on use, growth is forecast to slow to 1 mb/d in 2024.

Table 3: World Oil demand, mb/d

	2022	1Q23	2Q23	3Q23	4Q23	2023	Growth	%
Total OECD	**45.95**	**45.53**	**45.54**	**46.84**	**46.16**	**46.02**	**0.07**	**0.16**
~ of which US	*20.43*	*20.12*	*20.60*	*20.833*	*20.37*	*20.48*	*0.05*	*0.24*
Total Non-OECD	**53.62**	**56.12**	**55.64**	**55.13**	**57.06**	**55.99**	**2.36**	**4.41**
~ of which India#	*5.14*	*5.40*	*5.40*	*5.21*	*5.50*	*5.38*	*0.24*	*4.69*
~ of which China	14.85	15.63	15.96	15.38	16.11	15.77	0.92	6.19
Total world	**99.57**	**101.65**	**101.18**	**101.96**	**103.21**	**102.01**	**2.44**	**2.45**

Source: OPEC monthly report, August 2023

Note: 2023 = Forecast. Totals may not add up due to independent rounding*

Global petroleum product prices

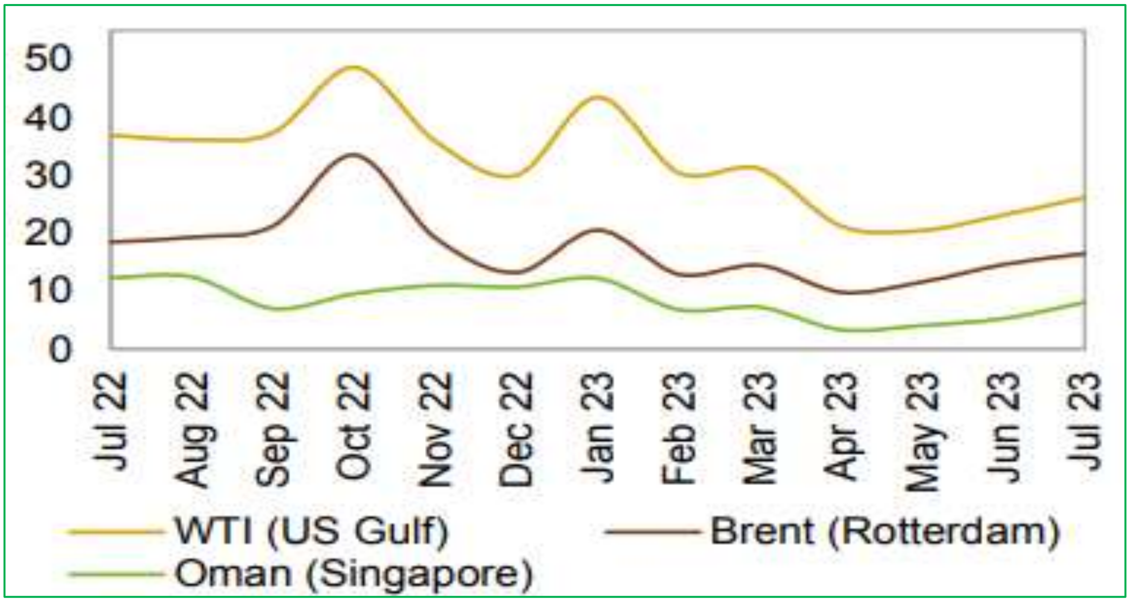
USGC refining margins against WTI increased for the second consecutive month, with gains seen all across the barrel except naphtha. Most of this improvement was attributed to robust transport fuel performance, with gasoline, outperforming all other products by showing a sizeable rise, the largest monthly gain since January 2023. This outcome was a reflection of the seasonal boost in transport fuels due to higher transport activities. In addition, strong US product exports, and the unplanned shutdown of an FCC unit at Marathons Petroleum Galveston Bay 625 tb/d refinery, combined, weighed on the country's product balances and led to considerable product stock draws and a sharp decline in gasoline, jet/ kero and fuel oil stocks in the USGC. These supportive product demand and supply side impacts, coupled with the stronger crude prices registered in July, exerted upward pressure on US fuel prices and contributed to the strengthening of USGC refining economics.

In terms of operations, US refinery intake continued to increase and gained 190 tb/d m-o-m to an average of 17.09 mb/d in July. USGC margins against WTI averaged $26.14/b, up by $2.99 m-o-m, but this was down $10.73 y-o-y.

Refinery margins in Rotterdam against Brent increased for the third consecutive month, with considerable strength manifested all across the barrel except fuel oil and naphtha. Middle distillates, especially jet/kerosene, represented the main margin contributor in the region and strong regional demand in response to supportive air travel activities. Moreover, firm product exports to the US and West Africa led to significant declines in the Amsterdam-Rotterdam-Antwerp trading hub, pointing to a contracting product balance despite the elevated refinery runs in the region. Throughout July, some European refineries returned from unplanned shutdowns, which drove product output levels higher, likely limiting further gains in refining economics.

Refinery throughput in Europe continued to rise in July. According to preliminary data, it was 280 tb/d higher at an average of 9.80 mb/d. Refinery margins against Brent in Europe averaged $16.44/b in July, $1.88 higher compared with a month earlier, but $2.00 lower y-o-y.

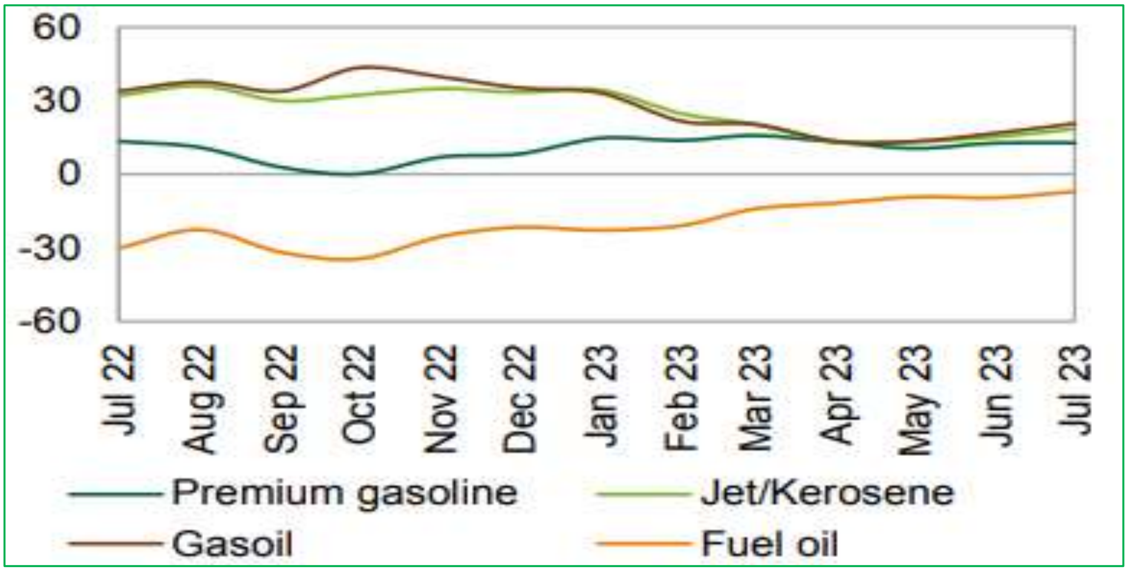
Figure 3: Refining Margins ($/bbl)



Source: Argus and OPEC

The Asian gasoline 92 crack saw a mild increase as supportive arbitrage economics provided an open window for deliveries to the US and Europe. The negative impact of heavy rains and floods registered in parts of Asia during the month, as well as strong output levels from China likely exerted pressure on regional consumption levels, preventing further strength in Asian gasoline markets. The Singapore gasoline crack spread against Dubai in July averaged $12.80/b. This was up $2.17 m-o-m but lower by $23.24 y-o-y.

Figure 4: Singapore crack Spreads vs. Dubai ($/bbl)



Source: Argus and OPEC

The Singapore gasoil crack spread extended its upward trend for the second consecutive month and exhibited robust performance, with gasoil representing the largest source of strength in the Asian product market, followed by jet/kerosene. Strong exports to the OECD Europe and Americas provided support, while consumption levels within the region remained somewhat capped due to soft industrial and manufacturing gasoil demand. The Singapore gasoil crack spread against Oman averaged $20.69/b, up by $3.87 m-o-m but down by $13.26 y-o-y.

Table 4: Singapore FOB, refined product prices ($/bbl) in July 2023

Singapore product prices	Price ($/b)	MoM (%) change	YoY (%) change
Naphtha	62.43	9.5%	-24.5%
Premium gasoline (unleaded 95)	98.60	6.8%	-18.9%
Regular gasoline (unleaded 92)	93.12	6.5%	-20.0%
Jet/Kerosene	98.85	9.8%	-26.7%
Gasoil/Diesel (50 ppm)	101.39	10.3%	-30.0%
Fuel oil (180 cst 2.0% S)	99.55	10.1%	-26.9%
Fuel oil (380 cst 3.5% S)	73.39	12.5%	1.0%

Source: OPEC

Petroleum products consumption in India

Monthly Review:

- Overall consumption of all petroleum products in July 2023 with a volume of 18.09 MMT registered a growth of 2.68% on volume of 17.61 MMT in July 2022.
- MS (Petrol) consumption during the month of July 2023 with a volume of 2.98 MMT recorded a growth of 6.32% on volume of 2.81 MMT in July 2022.
- HSD (Diesel) consumption during the month of July 2023 with a volume of 6.89 MMT recorded a growth of 3.86% on volume of 6.63 MMT in the month of July 2022.
- LPG consumption during the month of July 2023 with a volume of 2.389 MMT registered de-growth of 0.86% over the volume of 2.410 MMT in the month of July 2022.
- ATF consumption during July 2023 with a volume of 0.664 MMT registered a growth of 14.20% over the volume of 0.581 MMT in July 2022.
- Bitumen consumption during July 2023 with a volume of 0.531 MMT registered growth of 20.53% over volume of 0.441 MMT in the month of July 2022.
- Kerosene consumption registered growth of 114.20 % during the month of July 2023 as compared to July 2022.

Table 5: Petroleum products consumption in India, July 2023

CONSUMPTION OF PETROLEUM PRODUCTS (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,389	7.0%	-0.9%
Naphtha	1,067	9.4%	-6.4%
MS	2,985	-5.3%	6.3%
ATF	664	3.4%	14.2%
SKO	50	-2.4%	114.3%
HSD	6,893	-12.9%	3.9%
LDO	63	-1.7%	3.6%
Lubricants & Greases	307	-4.2%	-10.8%
FO & LSHS	569	9.4%	1.3%
Bitumen	531	-29.7%	20.5%
Petroleum coke	1,568	-3.2%	16.6%
Others	1,001	-10.5%	-20.8%
TOTAL	**18,088**	**-6.6%**	**2.7%**

Source: PPAC

Natural Gas Market

Natural Gas Price – Monthly Review

- Natural gas spot prices at the U.S. Henry Hub benchmark averaged $2.55 per million British thermal units (MMBtu) in July 2023. Henry Hub's natural gas prices experienced a consecutive monthly increase in July, rising by 17.0% m-o-m. Prices rose sharply in the month, supported by buying interest for US LNG in the Asian markets amid higher prices in the region. LNG spot prices in Asia averaged $11.2/mmbtu in July, which was $8.6/mmbtu higher than Henry Hub's average of $2.6/mmbtu over the same period. However, prices were down by 64.8% y-o-y.

- The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe traded at an average of $9.55 per MMBtu. Natural gas prices in Europe receded in July, offsetting gains from the previous month. The average Title Transfer Facility (TTF) price went from $10.4/mmbtu in June to $9.5/mmbtu in July, a 7.8% decrease m-o-m. Prices rallied earlier in the month on news of extended planned maintenance shutdowns at Norwegian facilities. However, heatwaves across southern Europe eased and gas inventories remained high, thus putting downward pressure on prices. As of 31 July, EU gas storage was at 86.0% according to data from Gas Infrastructure Europe. Lower industrial demand amid an economic slowdown in major EU economies in July also weighed on prices. Y-o-y, prices were down by 81.4%.
- Japan Liquefied Natural Gas Import Price averaged at $12.49 per MMBtu for July 2023, down from $12.68 per MMBtu in June 2023. Japan's liquefied natural gas imports fell to the lowest as efforts to save energy and boost nuclear power reduced the need for the fossil fuel. The drop in LNG deliveries to Japan, a top importer, is helping to ease the global fuel shortage, pushing prices to the lowest level in two years.

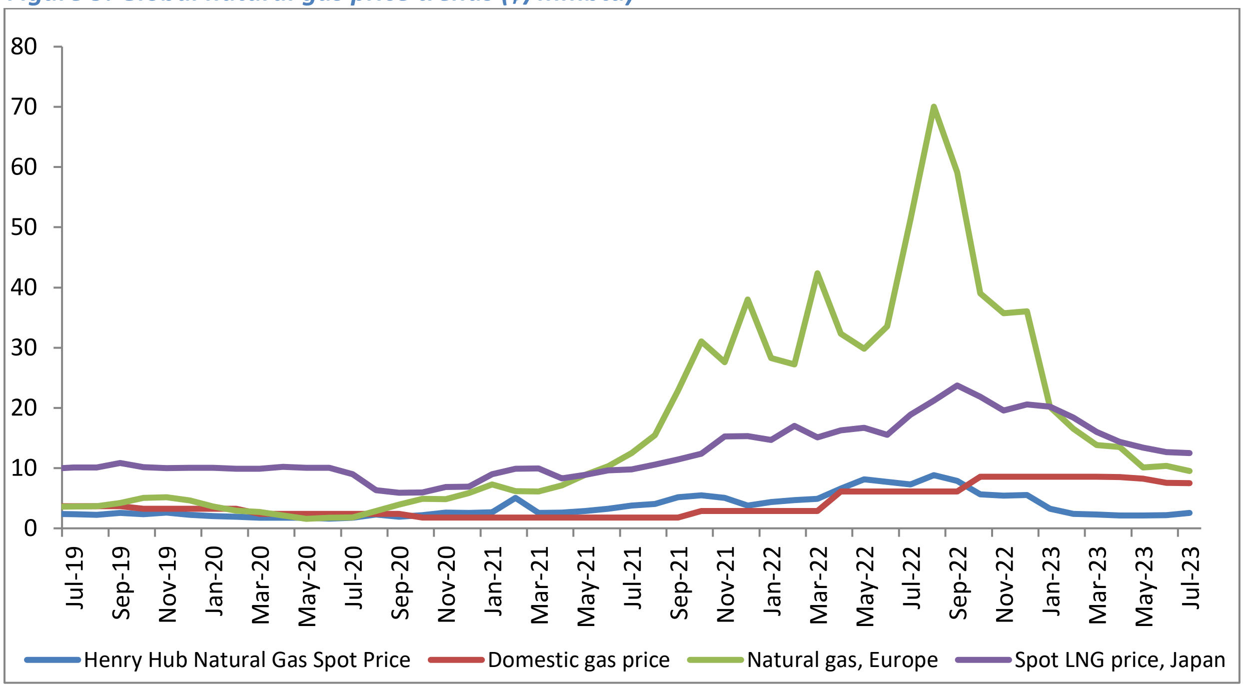
- The Union Cabinet has approved a new formula for pricing of natural gas and imposed cap or ceiling price on the same. Natural gas produced from legacy or old fields, known as APM gas, will now be indexed to crude oil prices. From April 1 2023, APM gas will be priced at 10 per cent of the price of basket of crude oil that India imports. The rate such arrived at however will be capped at USD 6.5 per MMBTU. The price such arrived at will also have a floor of USD 4 per MMBTU.

- Further, in accordance with MoP&NG, Govt. of India, pricing freedom for gas being produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas, the gas price ceiling for the period 1st April, 2023 - 30th September, 2023 was notified as US$ 12.12/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 31st March, 2023. However, on 7th April, 2023, the price of domestic natural gas for the period 1st April 2023 to 7th April 2023 was notified as US$ 9.16/MMBTU on GCV basis. Further, the price of domestic natural gas for the period 8th April 2023 to 30th April 2023 was notified as US$ 7.92/MMBTU.

- On 30th April 2023, in accordance with MoP&NG 's notification, the price of domestic natural gas for the period 1st May 2023 to 31st May 2023 was notified as US$ 8.27/MMBTU on GCV basis.

Subsequently, on 31st May 2023, in accordance with MoP&NG 's notification, the price of domestic natural gas for the period 1st June 2023 to 30th June 2023 was notified as US$ 7.58/MMBTU on GCV basis. Further, on 30th June 2023, in accordance with MoP&NG 's notification, the price of domestic natural gas for the period 1st July 2023 to 31st July 2023 was notified as US$ 7.48/MMBTU on GCV basis. On 31st July 2023, in accordance with MoP&NG 's notification, the price of domestic natural gas for the period 1st August 2023 to 31st August 2023 was notified as US$ 7.85/MMBTU on GCV basis.

Figure 5: Global natural gas price trends ($/mmbtu)



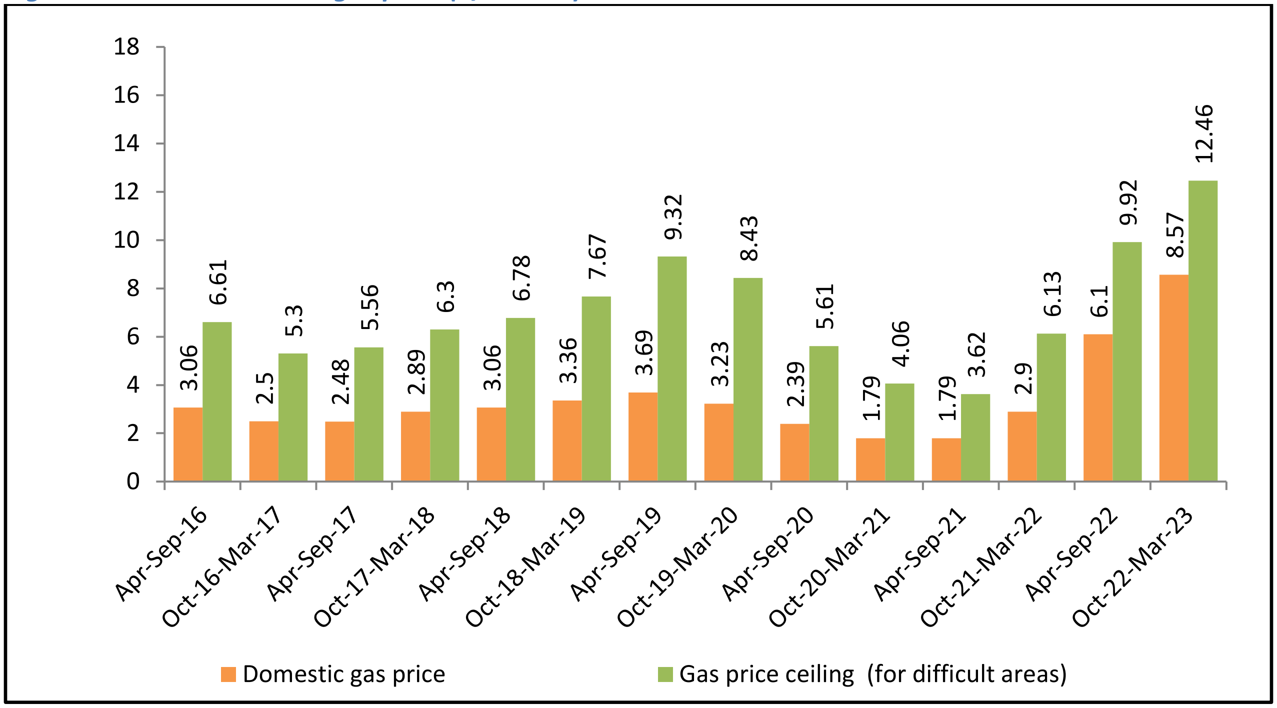
Source: EIA, World Bank

Table 6: Gas price, July 2023

Natural Gas	Price ($/MMBTU)	MoM (%) change	YoY (%) change
India, Domestic gas price (Aug'23)	7.85	4.9%	-
India, Gas price ceiling – difficult areas (Apr-Sep-23)	12.12	-2.7%	22.2%
Henry Hub	2.55	17.0%	-65.0%
Natural Gas, Europe	9.55	-7.7%	-81.4%
Liquefied Natural Gas, Japan	12.49	-1.5%	-33.8%

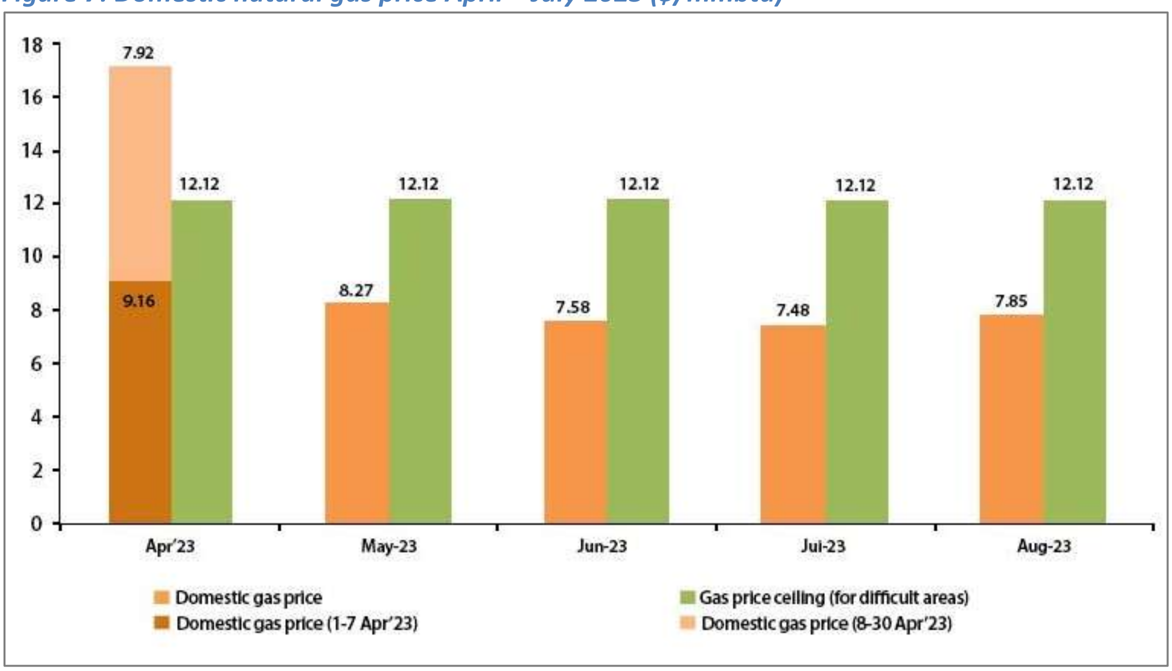
Source: EIA, PPAC, World Bank

Figure 6: Domestic natural gas price ($/mmbtu)



Source: PPAC

Figure 7: Domestic natural gas price April – July 2023 ($/mmbtu)



Source: PPAC

Indian Gas Market

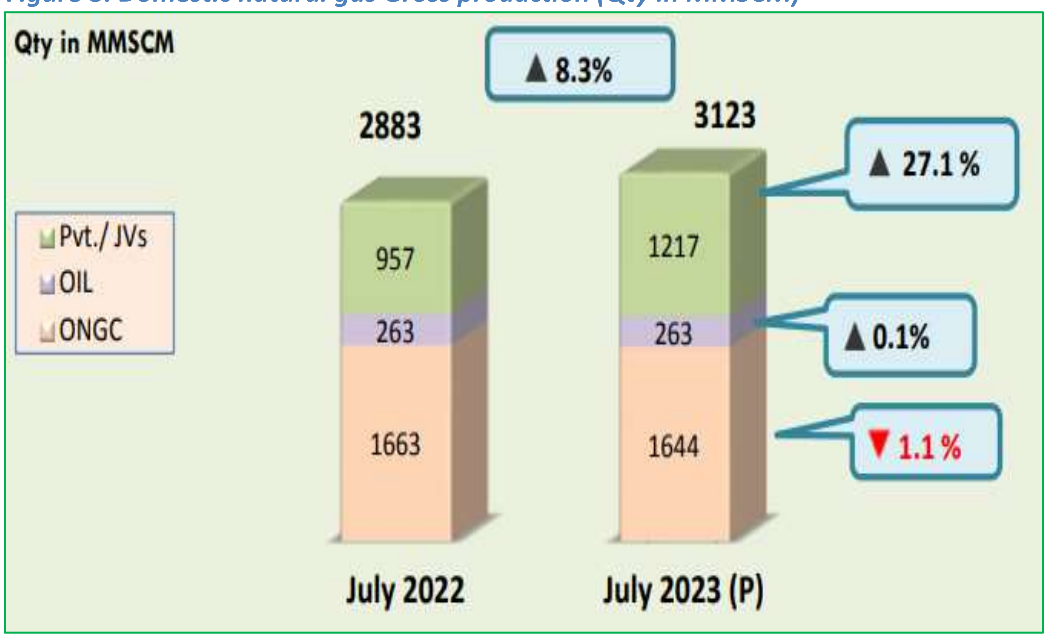
- Gross production of natural gas for the month of July 2023 was 3,123 MMSCM (increase of 8.3% over the corresponding month of the previous year).
- Total imports of LNG (provisional) during the month of July 2023 were 2,234 MMSCM (P) (decrease of 10.6% over the corresponding month of the previous year).
- Natural gas available for sale during July 2023 was 4,830.6 MMSCM (decrease of 0.02% over the corresponding month of the previous year).
- Total consumption during July 2023 was 5,567 MMSCM (provisional). Major consumers were fertilizer (30%), City Gas Distribution (CGD) (20%), Power (13%), Refinery (9%) and Petrochemicals (4%).

Monthly Report on Natural gas production, imports and consumption – July 2023

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of July 2023 was 3,123 MMSCM (increase of 8.3% over the corresponding month of the previous year).

Figure 8: Domestic natural gas Gross production (Qty in MMSCM)

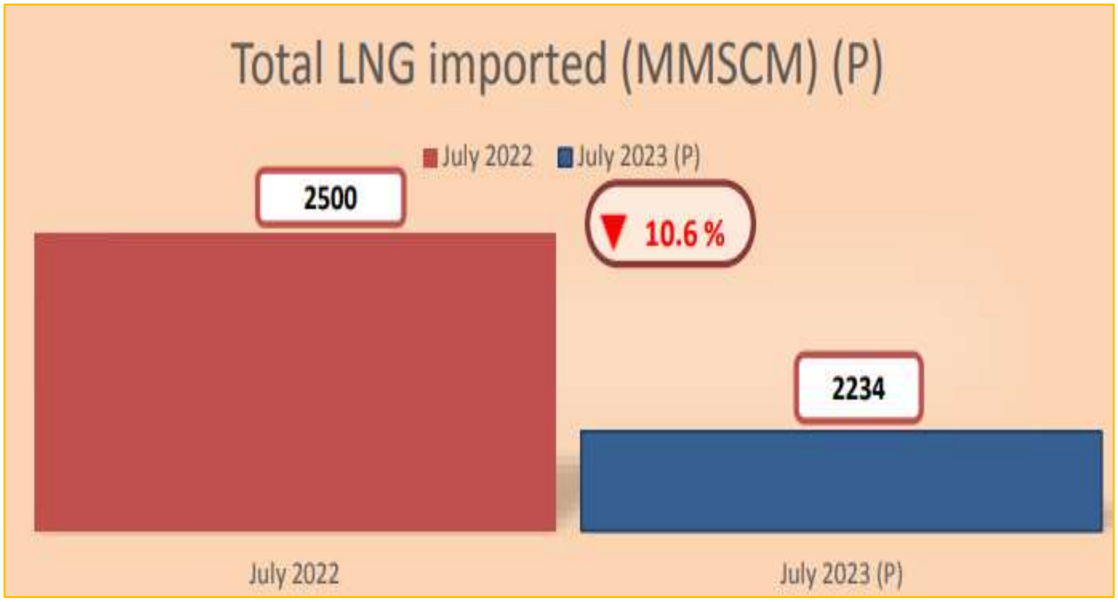


Source: PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of July 2023 were 2,234 MMSCM (decrease of 10.6%) over the corresponding month of the previous year 2,500 MMSCM.

Figure 9: LNG imports (Qty in MMSCM)

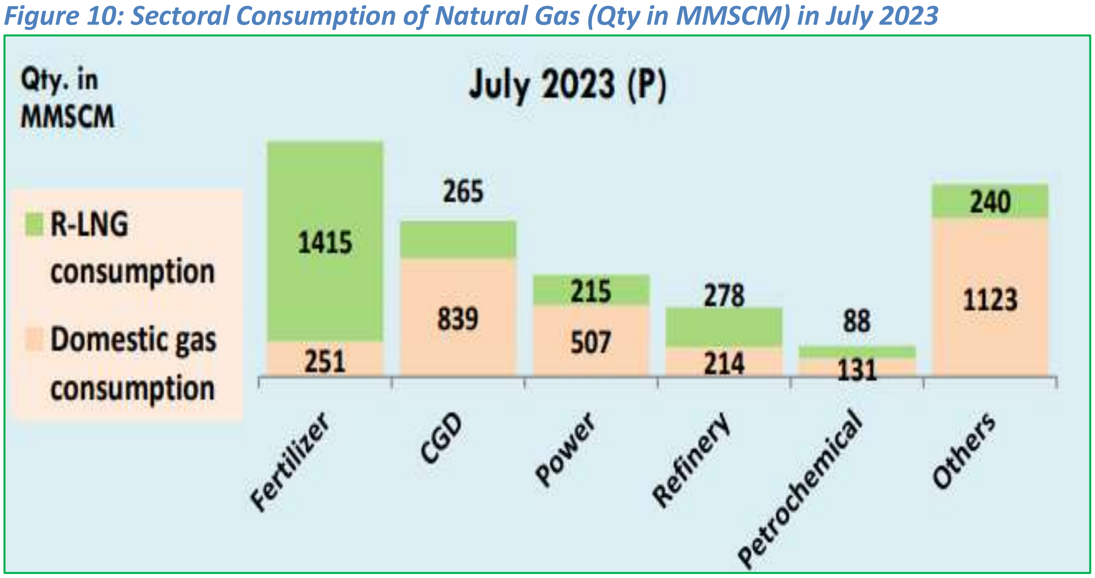


Source: PPAC

3. Sectoral Consumption of Natural Gas:

Major consumers were fertilizer, CGD, power, refinery, petrochemicals among others.

Figure 10: Sectoral Consumption of Natural Gas (Qty in MMSCM) in July 2023



Source: PPAC

Key developments in Oil & Gas sector

- **Monthly Production Report for July, 2023**

1. Production of Crude Oil

Indigenous crude oil and condensate production during July 2023 was 2.50 MMT. OIL registered a production of 0.28 MMT, ONGC registered a production of 1.62 MMT whereas PSC registered production of 0.60 MMT during June 2023. A growth of 2.1% in total Crude Oil & Condensate Production has been achieved in July 2023 as compared to July 2022.

2. Production of Natural Gas

Gross production of natural gas for the month of July 2023 (P) was 3123 MMSCM which was higher by 8.3% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 11687 MMSCM for the current financial year till July 2023 was higher by 2.2% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Total Crude oil processed during July 2023 was 21.9 MMT which is 2.2% higher than July 2022. Where PSU/JV Refiners processed 14.7 MMT and PVT Refiners Processed 7.2 MMT of Crude Oil. Total Indigenous Crude Oil processed was 2.4 MMT and total Imported Crude oil processed was 19.5 by all Indian Refineries (PSU+JV+PVT).

4. Production of Petroleum Products

Production of petroleum products was 22.8 MMT during July 2023 which is 3.6% higher than July 2022. Out of above 22.5 MMT, was from Refinery production & 0.3 MMT was from Fractionator. There was 2.4 % growth in Production of petroleum products in Apr July, 2023 – 24 as compared to same period of 2022 – 23. Out of total POL production, in July 2023, HSD has 41.8%, MS has 16.7%, Naphtha has 6.5%, ATF has 6.3%, Pet Coke has 5.8%, LPG has 4.8% which are of major products and rest are shared by Bitumen, FO/LSHS, LDO, Lubes & others.

Key Policy developments/significant news in Energy sector

Windfall tax on petroleum crude, ATF and diesel; Petrol to remain zero

The Indian government increased the windfall tax on crude petroleum to Rs 7,100 per tonne from Rs 4,250 per tonne with effect from August 15, 2023. Along with crude petroleum, Special Additional Excise Duty (SAED) on diesel was hiked to Rs 5.50 per litre from Re 1 per litre. Also, a duty of Rs 2 per litre will be imposed on jet fuel or ATF. The windfall tax on petrol will remain nil.

India first imposed windfall profit taxes on 1st July 2022, joining a growing number of nations that tax super normal profits of energy companies. At that time, export duties of ₹6 per litre ($12 per barrel) each were levied on petrol and ATF and ₹13 a litre ($26 a barrel) on diesel. A ₹23,250 per tonne ($40 per barrel) windfall profit tax on domestic crude production was also levied. The export tax on petrol has since been scrapped. The tax rates are reviewed every fortnight based on average oil prices in the country.

Government announced the definition of Green Hydrogen

The government notified the Green Hydrogen Standard for India. The standard issued by the Ministry of New and Renewable Energy (MNRE), Government of India outlines the emission thresholds that must be met in order for hydrogen produced to be classified as 'Green', i.e., from renewable sources. The scope of the definition encompasses both electrolysis-based and biomass-based hydrogen production methods.

Ministry of New & Renewable Energy has decided to define Green Hydrogen as having a well-to-gate emission (i.e., including water treatment, electrolysis, gas purification, drying and compression of hydrogen) of not more than 2 kg CO_2 equivalent / kg H_2. The notification specified that a detailed methodology for measurement, reporting, monitoring, on-site verification, and certification of green hydrogen and its derivatives shall be specified by the Ministry of New & Renewable Energy.

The notification also specified that the Bureau of Energy Efficiency (BEE), Ministry of Power shall be the Nodal Authority for accreditation of agencies for the monitoring, verification and certification for Green Hydrogen production projects.

Government reduced the LPG cylinder price by Rs 200/ cylinder for all the LPG consumers (33 crore connections)

The Government led by Prime Minister Sh. Narendra Modi, announced a substantial reduction in the price of cooking gas. Effective 30.08.2023, the price of a 14.2 Kg LPG cylinder will be reduced by Rs 200 in all markets across the country. In Delhi for instance, the decision will bring down the cost of a 14.2 Kg cylinder from the existing Rs 1103 per cylinder to a more affordable Rs 903 per cylinder.

This reduction is in addition to the existing targeted subsidy of Rs 200 per cylinder to PMUY households, which will continue. For PMUY households therefore, the effective price in Delhi after this reduction will be Rs 703 per cylinder.

The reduction in cooking gas prices is expected to have a positive impact on the cost of living for a wide spectrum of society. Government's proactive step is projected to save significant expenses for households, making an appreciable contribution to the disposable income of citizens.

Government launched world's first prototype of the BS 6 Stage II ‘Electrified Flex Fuel Vehicle’

Union Minister for Road Transport and Highways Shri Nitin Gadkari launched the world's first prototype of the BS 6 Stage II ‘Electrified Flex Fuel Vehicle’, developed by Toyota Kirloskar Motor in the presence of Union Minister Shri Hardeep Singh Puri, Union Minster Shri Mahendra Nath Pandey, MD & CEO of Toyota Shri Masakazu Yoshimura, MD & CEO of Kirloskar Systems Limited Geetanjali Kirloskar, Ambassador, Diplomats from Japan Embassy, higher officials and advisors.

Speaking on the occasion Shri Gadkari said Ethanol being an indigenous, eco-friendly, and renewable fuel holds promising prospects for India. He said the emphasis of the Modi Government on ethanol aligns with objectives of attaining energy self-sufficiency, doubling farmers' income, transitioning them to Urjadata while continuing to support them as Annadata, and positively impacting the environment. He said the day ethanol economy becomes of 2 lakh crores agricultural growth rate will reach 20% from the current 12%. Talking about innovations in biofuels Shri Gadkari spoke of refinery in Numaligarh in Assam where bamboo is being used for manufacturing bio ethanol.

****

Research, analysis & compilation by:

Economic Policy & Planning Team -FIPI

Email: pankhuri@fipi.org.in