FIPI

Federation of Indian Petroleum Industry

POLICY & ECONOMIC REPORT

OIL & GAS MARKET

January
2023

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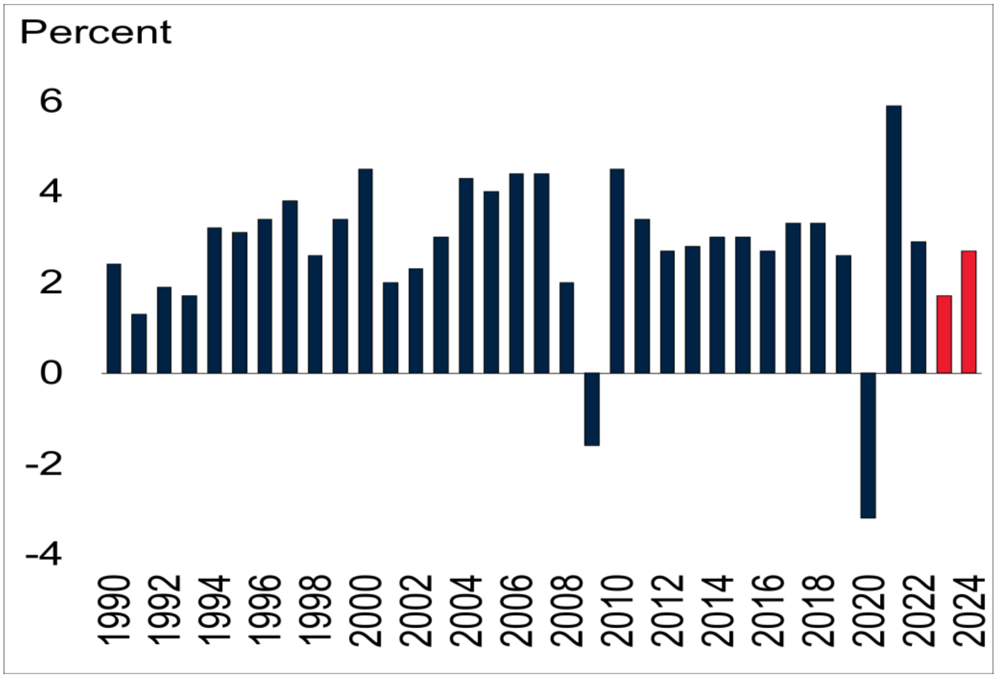
Executive Summary

According to World Bank, global economy is projected to grow by 1.7% in 2023 from its earlier forecast of 3% in July 2023 and at 2.7% in 2024. Very high inflation along with monitoring policy tightening by many advanced economies have resulted in worsening of global financial conditions, thus impacting economic activity.



Source- World Bank

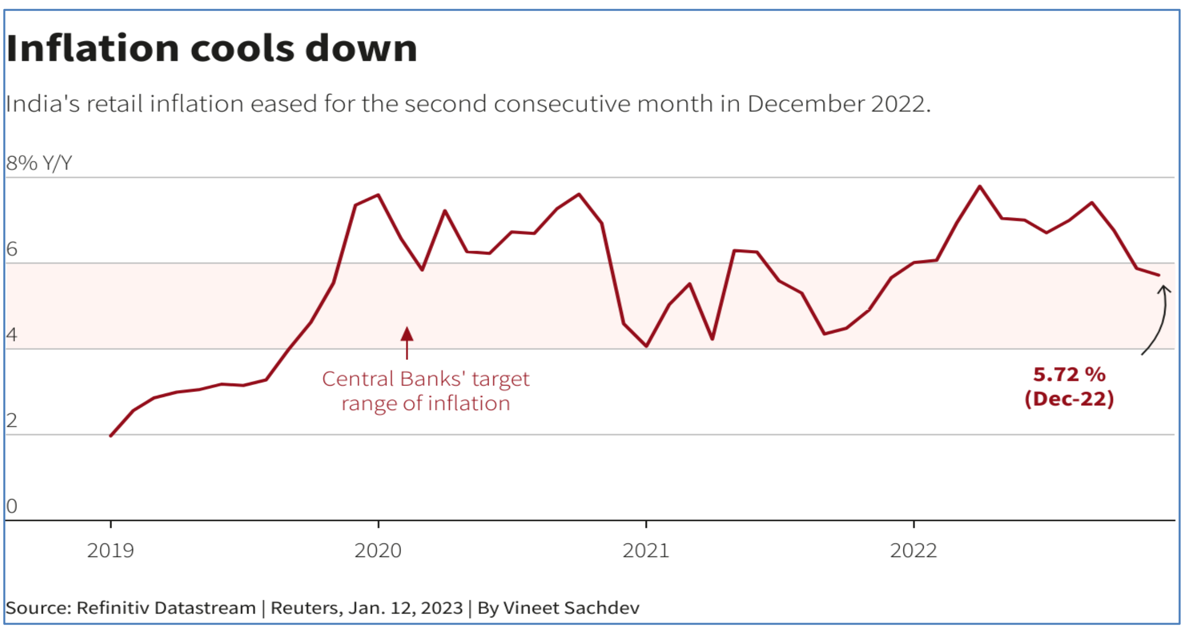
GDP growth rate in advanced economies is projected at 0.5% in 2023 from 2.5 % in 2022. In the United States, one of the most aggressive monetary policy tightening cycles in recent history is expected to slow growth sharply and range at 0.5% in 2023 and at 1.6% in 2024. The euro area is also contending with severe energy supply disruptions and price hikes associated with the Russian – Ukraine war crisis. In EMDEs, growth prospects have shown the forecast for 2023 at 3.4 %. The downward revision is due to weaker external demand and tighter financing. While in China, the GDP growth rate is forecasted at 4.3% in 2023 and 5% in 2024, Latin America and Middle East will experience growth rate at 1.3% and 3.5% in 2023 respectively and at 2.4% and 2.7% in 2024 respectively.

According to World Bank, global inflation has peaked at 7.6 % in 2022, and is expected to remain elevated at 5.2 % in 2023 before easing to 3.2 % in 2024. According to UN, global growth rates are set to decrease from 3% in 2022 to 1.9% in 2023. This will be one of the lowest growth rates in recent decades, apart from during the 2007-08 financial crisis and the height of the COVID-19 pandemic.

According to the Economic Survey 2022-23 tabled by Finance Minister, Indian economy is expected to grow at 7 % (in real terms) for the year 2022-23, this follows an 8.7 % growth in the year 2021-22. The Economic Survey projects India to witness GDP growth of 6.0 % to 6.8 % in 2023-24, depending on the trajectory of economic and political developments globally. The optimistic growth forecasts stem from a number of factors like the rebound of private consumption giving a boost to production activity, higher capital expenditure, and near universal vaccination coverage enabling people to spend on contact-based services such as restaurants, hotels, shopping malls etc. Further, capital expenditure (capex) of the Central government, which increased by 63.4 % in the first eight months of FY 23, was another growth driver of the Indian economy in the current year. The surge in growth of exports in FY 22 and the first half of FY 23 also induced a growth in the economic activity.

The Union Budget presented by the honorable Finance Minister was a growth-oriented budget with a long- term view of social and infrastructure development. The Budget presented the following seven priorities. They complement each other and act as the 'Saptarishi' guiding us through the Amrit Kaal - Inclusive Development, Reaching the Last Mile, Infrastructure and Investment, Unleashing the Potential, Green Growth, Youth Power, Financial Sector. The budget was based on the growth pronged strategy and included factors such as- increased in infrastructural investment, adherence to fiscal deficit, broadening of tax slabs under new tax regime, thus maintaining fiscal consolidation, attracting investments, creating job opportunities and ensuring inclusive growth.

According to the data released by the Ministry of Statistics & Programme Implementation (MoSPI), the Consumer Price Index (CPI)-based inflation rate eased to 5.72% in December from 5.88% in November and 6.77% in October 2022. The government has mandated the RBI to maintain retail inflation at 4% with a margin of 2% on either side for a five-year period ending March 2026.



Source- Reuters

To curb inflation, the RBI has hiked benchmark interest rates by 2.25 % in five tranches since May. The repo rate currently stands at 6.25%. The CMIE data for January, 2023 suggest that the unemployment rate has been at 7.11% in the month of January, 2023 with urban unemployment rate at 8.72 % and the rural unemployment rate is at 6.35 % in January, 2023.

According to RBI, India's forex reserves increased by $1.727 billion to $573.727 billion in the week ended January 20, 2023. The foreign currency assets, a major component of the reserves, increased by $839 million to $506.358 billion, according to the Weekly Statistical Supplement released by the RBI. The gold reserves continued to rise, jumping by $821 million to $43.712 billion. The Special Drawing Rights (SDRs) were up by $68 million to $18.432 billion. The country's reserve position with the IMF was down by $1 million to $5.226 billion in the reporting week. India's overall exports (Merchandise and Services combined) in April-December 2022 is estimated to exhibit a positive growth of 16.11 % over the same

Beginning 2023, oil prices advanced, yet continuing hovering around the levels seen before Russia invaded Ukraine in February 2022. Conflicting supply-and-demand factors have led to an increase in uncertainty in oil price forecasts. Additionally, fears of a recession have intensified in both the US and Europe, which could hurt oil demand.

According to IEA, Russia and China will be the major countries shaping the oil price forecast in 2023, as the oil prices will be driven by the balance between the tightening Russian supply and China's demand growth. Potential supply losses from Russia and the re-opening of China could see the market tighten quickly.

Natural gas spot prices at the U.S. Henry Hub benchmark averaged $5.53 per million British thermal units (MMBtu) in December 2022 as compared to $5.45 per million British thermal units (MMBtu) in November 2022. Natural gas prices started to increase due to higher winter natural gas demand and rising LNG exports.

Economy in Focus

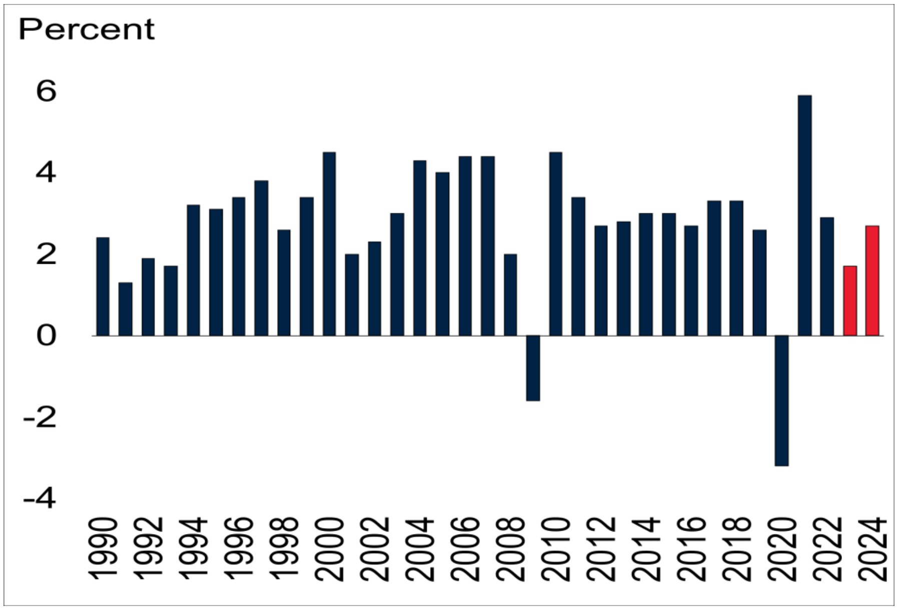
1. **A snapshot of the global economy**

Global economic growth

- According to World Bank, global economy is projected to grow by 1.7% in 2023 from its earlier forecast of 3% in July 2023 and at 2.7% in 2024.

- Very high inflation along with monitoring policy tightening by many advanced economies have resulted in worsening of global financial conditions, thus impacting economic activity.

Figure- Global growth

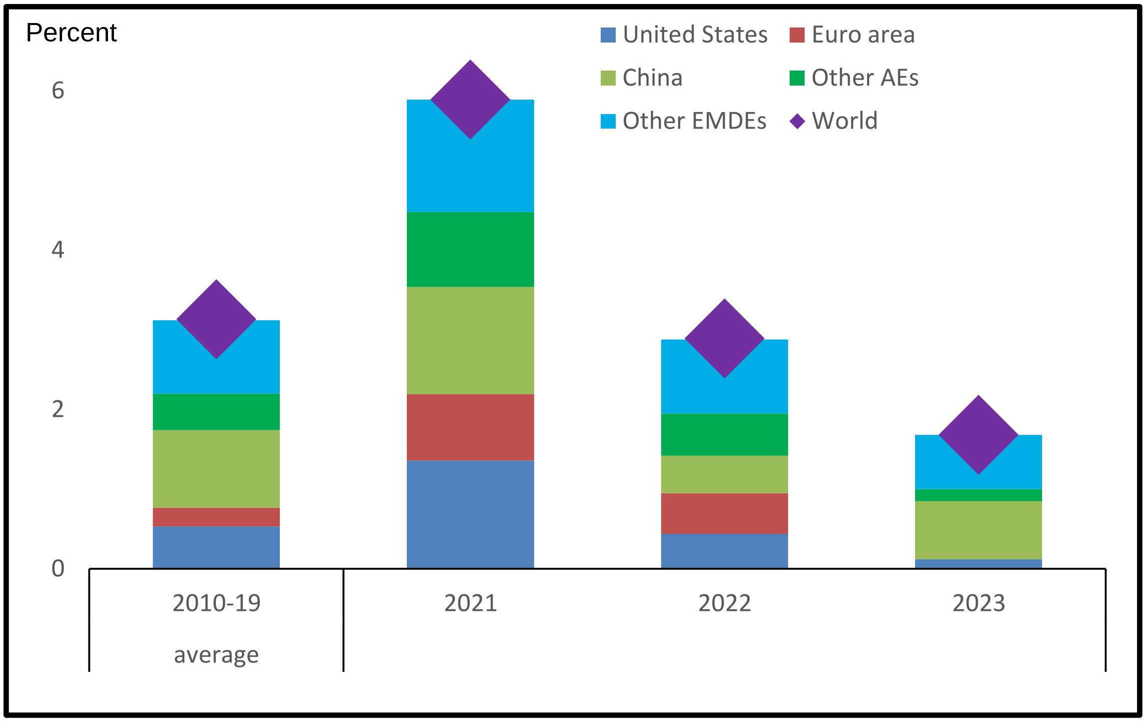


Source- World Bank

- GDP growth rate in advanced economies is projected at 0.5% in 2023 from 2.5 % in 2022. In the United States, one of the most aggressive monetary policy tightening cycles in recent history is expected to slow growth sharply and range at 0.5% in 2023 and at 1.6% in 2024. The euro area is also contending with severe energy supply disruptions and price hikes associated with the Russian – Ukraine war crisis.

- In EMDEs, growth prospects have shown the forecast for 2023 at 3.4 %. The downward revision is due to weaker external demand and tighter financing. While in China, the GDP growth rate is forecasted at 4.3% in 2023 and 5% in 2024, Latin America and Middle East will experience growth rate at 1.3% and 3.5% in 2023 respectively and at 2.4% and 2.7% in 2024 respectively.

Figure- Contributions to global growth



Source- World Bank

- Per capita income growth is expected to be slowest where poverty is highest. In Sub-Saharan Africa—which accounts for about 60 % of the world's poor— growth in per capita income over 2023-24 is forecast to average only 1.2 %, far less than the pace that would be needed over the remainder of the decade to reach a 3 % poverty rate by 2030.

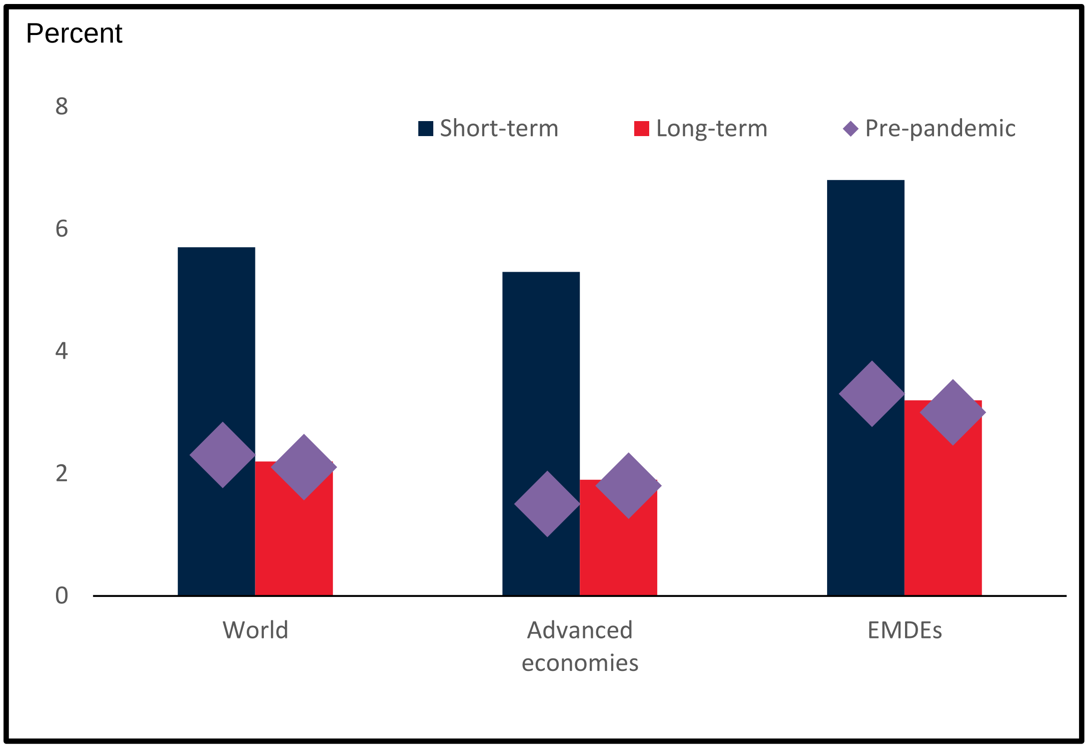
Global inflation

- Soaring inflation reflects a combination of supply and demand factors, including large price increases for food and energy products priced in U.S. dollars.

- Inflation has risen particularly rapidly in poorer countries, partially due to the greater share of food in consumer spending.

- According to World Bank, global inflation has peaked at 7.6 % in 2022, and is expected to remain elevated at 5.2 % in 2023 before easing to 3.2 % in 2024.

Figure- Inflation expectations



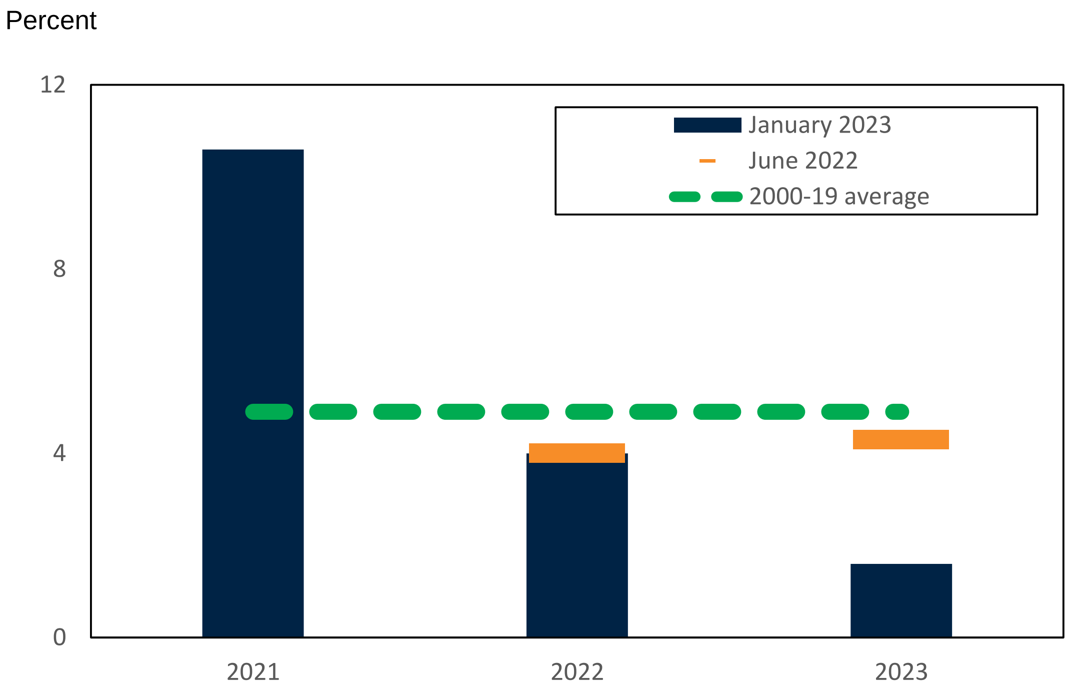
Source- World Bank

- Short-term inflation expectations have risen in most countries; with global inflation ranging at 5.7 %, for advanced economies at 5.3% and for EMDEs at 6.8%.
- In case of long-term expectations, they have been more stable with global, advanced and EMDEs ranging at 2.2%, 1.9% and 3.2% respectively.

Global trade

- After reaching to 4% in 2022, global trade growth is expected to decelerate further to 1.6% in 2023, largely reflecting weakening global demand.
- Trade is expected to be subdued in EMDEs with strong trade linkages to major economies where demand is expected to slow sharply.
- Travel and tourism are expected to pick up further but will be constrained by slower global activity and high input costs. Goods trade is expected to moderate owing to subdued demand and a gradual shift in consumption toward services.

Figure- Global trade growth



Source- World Bank

2. Global growth forecast to slow to 1.9% in 2023, warn UN economists

- According to UN, global growth rates are set to decrease from 3% in 2022 to 1.9% in 2023. This will be one of the lowest growth rates in recent decades, apart from during the 2007-08 financial crisis and the height of the COVID-19 pandemic.

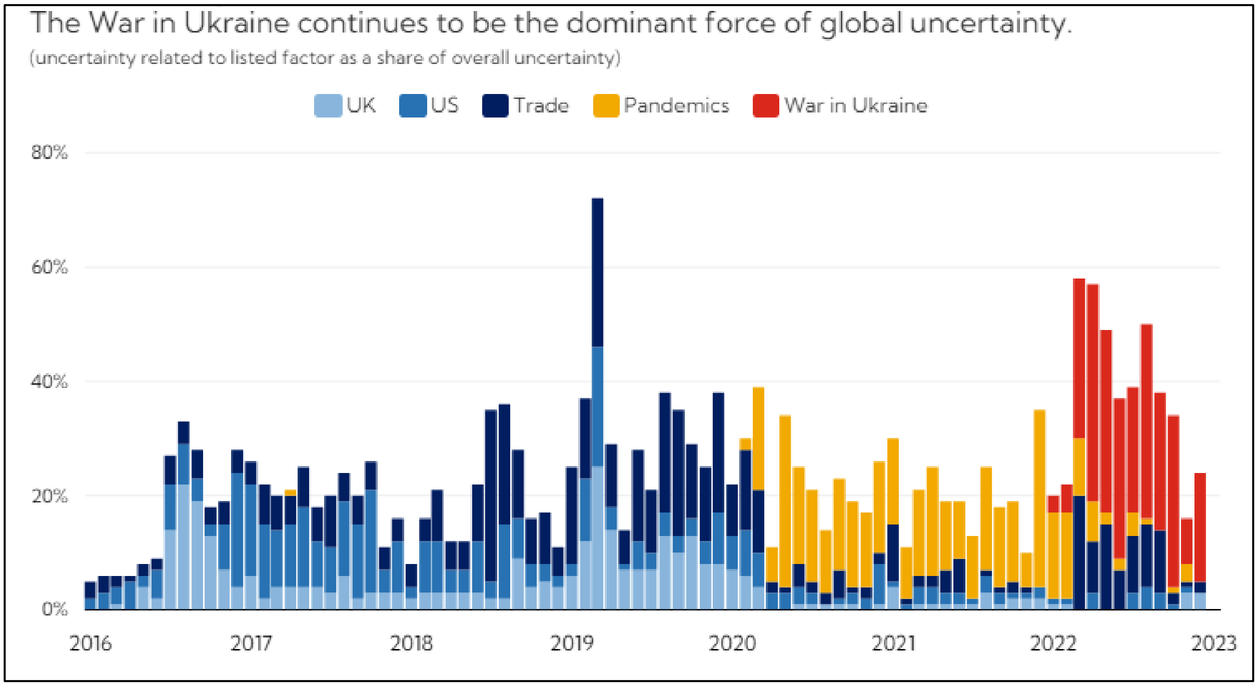
- UN expects private consumption and investment will weaken due to inflation and higher interest rates. UN points out the reason for decline in growth rates as, the Russia-Ukraine war and resulting food and energy crises, surging inflation, debt tightening, as well as the climate emergency.

- UN forecasts that in the near term, the economic outlook is gloomy and uncertain with global growth forecast to moderately pick up to 2.7 % in 2024.

- However, it expects that this is highly dependent on the pace and sequence of further monetary tightening, rising interest rates, the consequences of the Russia-Ukraine war, and the possibility of further supply-chain disruptions.

3. **Global Economic Uncertainty Remains Elevated, Weighing on Growth**

- World Uncertainty Index released by IMF shows reading and incorporates data for 71 economies dating back to 2008.



Source- IMF

- According to IMF, the index fell in December, but has continued to hit elevated levels in recent times on the back of successive shocks, including most recently Russia- Ukraine war and the associated cost-of-living crisis.

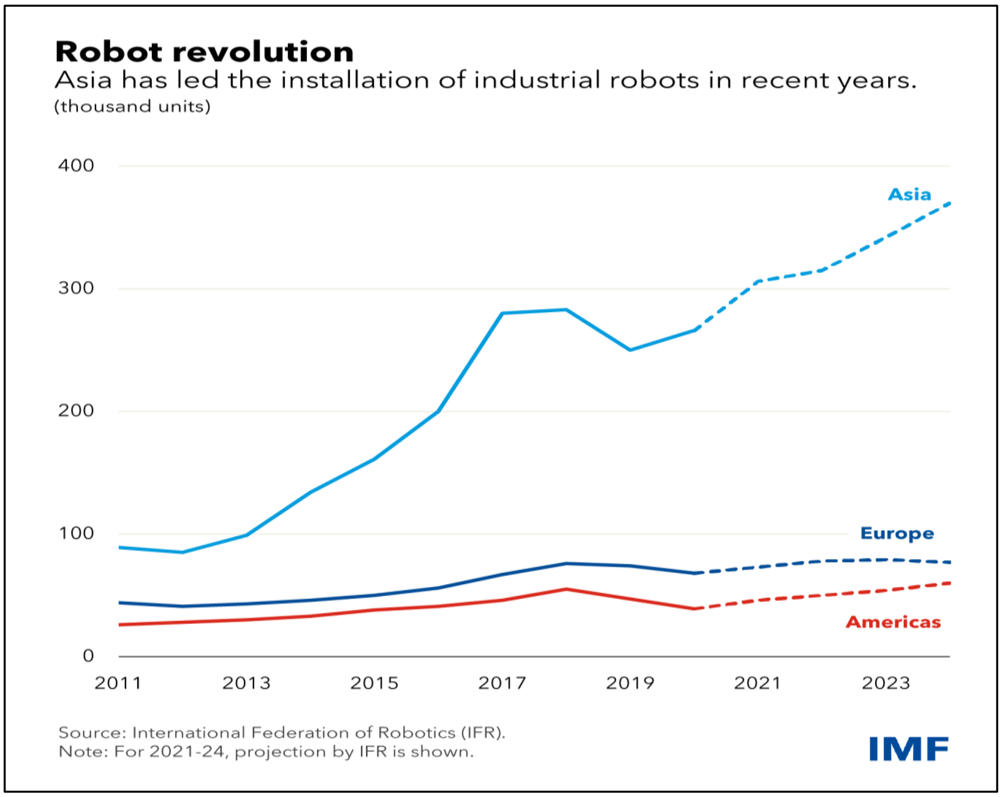
- The figure depicts uncertainty in terms of trade, the pandemic, spillovers from major economies, and the economic uncertainty associated with the risk of geoeconomic fragmentation as a result of Russia-Ukraine war.

4. **Asia's Productivity Needs a Boost That Digitalization Can Provide- IMF**

- Asia's strong economic rebound from the pandemic is losing steam as tightening financial conditions, reduced export demand, and China's sharp and uncharacteristic slowdown dim the outlook.

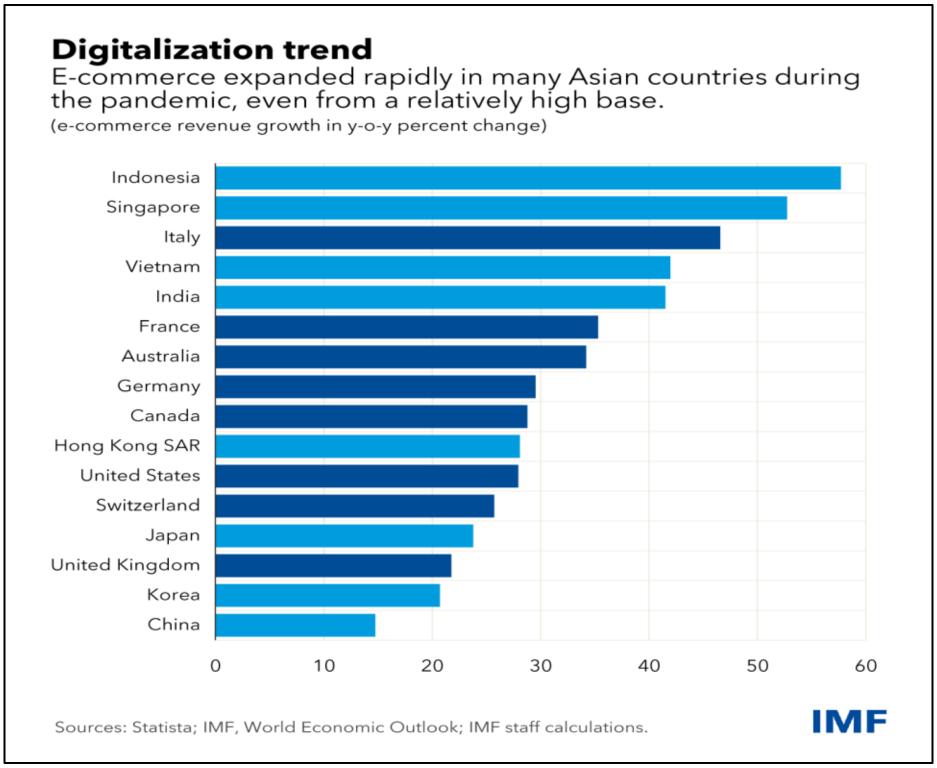
- Digital technologies can increase the efficiency of the public and private sectors, expand financial inclusion, improve access to education, and open new markets by allowing companies to serve distant customers. For instance, during the pandemic, digitalization improved the allocation of resources for health and social benefits. Digitalization has helped support resilience during the pandemic, where, combined with large fiscal support, remote work and online sales protected workers, students and businesses.

- Asia's digital landscape has swelled in recent years, encompassing a broad range of innovations, from manufacturing automation to e-commerce platforms, and to digital payments. The region accounted for 60 % of patents in digital and computer technologies right before the pandemic, up from 40 % two decades earlier. The manufacturing powerhouse enjoys a wide global lead in installation of industrial robots. China is the single biggest robot user, accounting for 30 % of the market.



- The pandemic accelerated the region's digitalization trend. The proportion of patent applications for remote work and e-commerce technologies surged during the pandemic as did spending on e-commerce, with Asia now accounting for nearly 60 % of the world's online retail sales. E-commerce revenues grew by 40–50 % in Vietnam, Indonesia, and India in 2020, outpacing most of the world.

- This rapid increase was spurred by the shift away from cash payments and a resulting boom in digital alternatives, particularly e-wallets and prepaid cards.



Asia is poised to continue leading digital innovation. Facilitating equal access to technologies across firms, industries, and workers will help the region fully benefit from the economic boost that digitization offers.

5. Indian Economy

India's economic growth

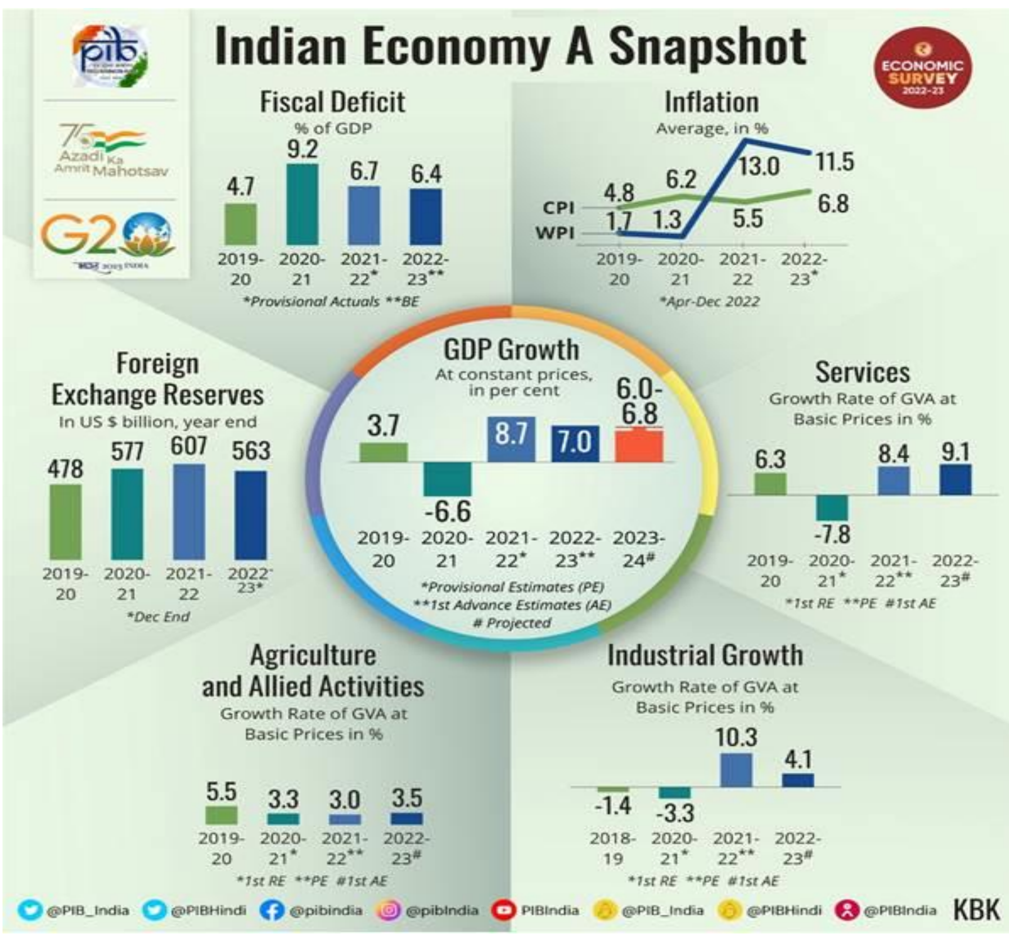
According to the Economic Survey 2022-23 tabled by Finance Minister, Indian economy is expected to grow at 7 % (in real terms) for the year 2022-23, this follows an 8.7 % growth in the year 2021-22.

The Economic Survey projects India to witness GDP growth of 6.0 % to 6.8 % in 2023-24, depending on the trajectory of economic and political developments globally. The optimistic growth forecasts stem from a number of factors like the rebound of private consumption giving a boost to production activity, higher capital expenditure, and near universal vaccination coverage enabling people to spend on contact-based services such as restaurants, hotels, shopping malls etc.

The key growth indicators are listed below: -

- Credit growth to the micro, small, and medium enterprises (MSME) sector has been remarkably high, over 30.5 %, on average during Jan- Nov 2022.
- Capital expenditure (capex) of the Central government, which increased by 63.4 % in the first eight months of FY 23, was another growth driver of the Indian economy in the current year.

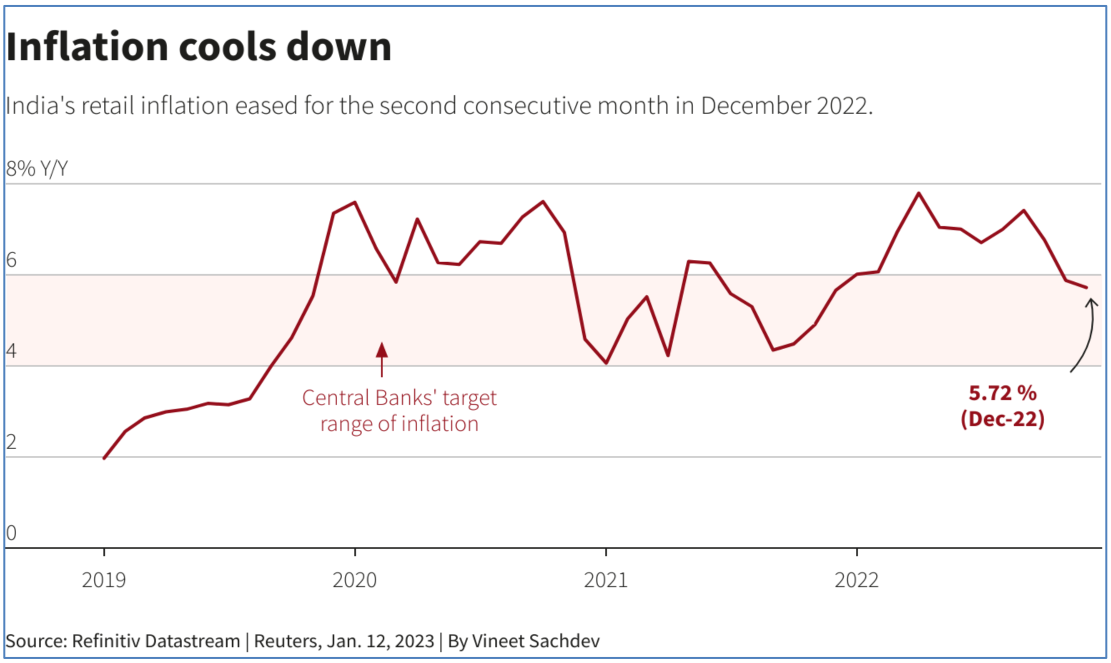
- The return of migrant workers to construction activities helped housing market witness a significant decline in inventory overhang to 33 months in Q3 of FY 23 from 42 months last year.
- The surge in growth of exports in FY 22 and the first half of FY 23 induced a growth in the economic activity.
- Private consumption as a percentage of GDP stood at 58.4 % in Q2 of FY23, the highest among the second quarters of all the years since 2013-14, supported by a rebound in contact-intensive services such as trade, hotel and transport.
- Agriculture and allied sectors expected to grow by 3.5 %; industry by 4.1 % and services sector by 9.1 % in 2022-23.
- Foreign Exchange Reserves touched US $ 563 billion as of December 31, 2022.
- The average headline CPI-Combined inflation moderated to 6.8 % in 2022-23 (April-December) and WPI inflation reached 11.5% in 2022-23.
- Merchandise exports were USD 332.8 bn for April-December 2022 exhibiting a growth of 16% from April-December 2021.
- GVA of the industrial sector rose by 3.7% for the first half of FY 2022-23.
- Credit growth to the micro, small, and medium enterprises (MSME) sector has been remarkably high, over 30.5 %, on average during Jan-Nov 2022.



Source- Press Release, Ministry of Finance

Inflation in India

- According to the data released by the Ministry of Statistics & Programme Implementation (MoSPI), the Consumer Price Index (CPI)-based inflation rate eased to 5.72% in December from 5.88% in November and 6.77% in October 2022.
- The government has mandated the RBI to maintain retail inflation at 4% with a margin of 2% on either side for a five-year period ending March 2026.
- Lower food prices, particularly the fall in vegetable prices, helped keep inflation within the tolerance range. Food inflation, which accounts for about 40% of the inflation basket, came in at 4.19% in December as against 4.67% in the preceding month.

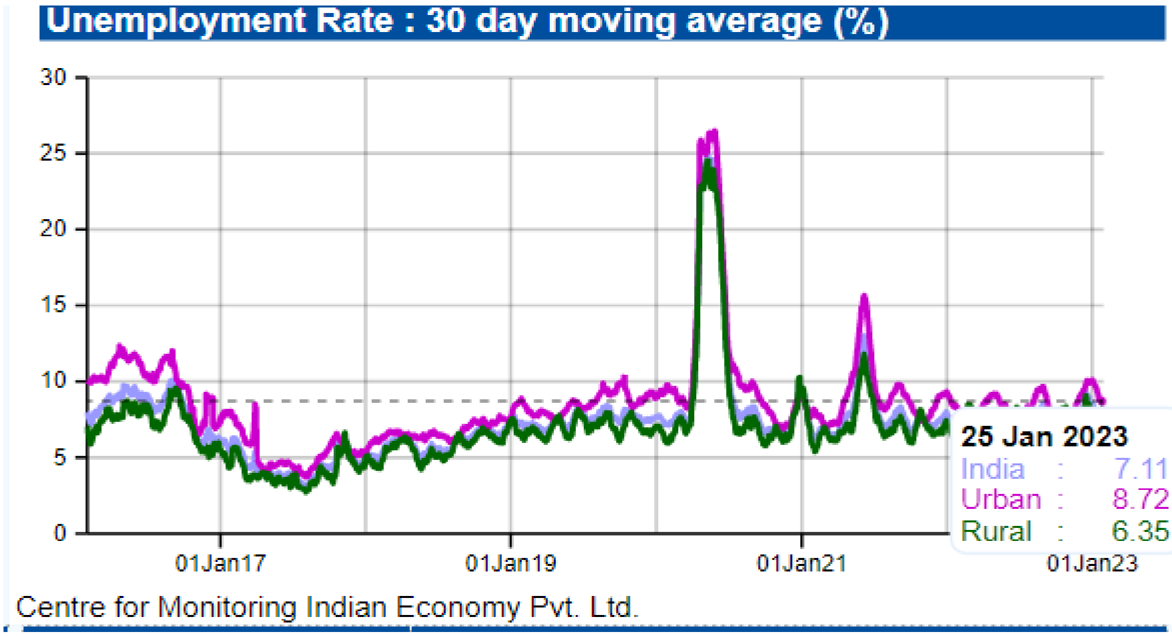


Source- Reuters

- To curb inflation, the RBI has hiked benchmark interest rates by 2.25 % in five tranches since May. The repo rate currently stands at 6.25%.

Unemployment in India

The CMIE data for January, 2023 suggest that the unemployment rate has been at 7.11% in the month of January, 2023 with urban unemployment rate at 8.72 % and the rural unemployment rate is at 6.35 % in January, 2023.



India's external position

India's forex position

- According to RBI, India's forex reserves increased by $1.727 billion to $573.727 billion in the week ended January 20, 2023.
- The foreign currency assets, a major component of the reserves, increased by $839 million to $506.358 billion, according to the Weekly Statistical Supplement released by the RBI.
- The gold reserves continued to rise, jumping by $821 million to $43.712 billion. The Special Drawing Rights (SDRs) were up by $68 million to $18.432 billion.
- The country's reserve position with the IMF was down by $1 million to $5.226 billion in the reporting week.
- In October 2021, the country's forex reserves had reached an all-time high of $645 billion. The reserves have been declining as the central bank deploys the reserves to defend the rupee amid pressures caused majorly by global developments.

India's foreign trade position

- India's overall exports (Merchandise and Services combined) in April-December 2022 is estimated to exhibit a positive growth of 16.11 % over the same period last year (April-December 2021).
- As India's domestic demand has remained steady amidst the global slump, overall imports in April-December 2022 are estimated to exhibit a growth of 25.55 % over the same period last year.

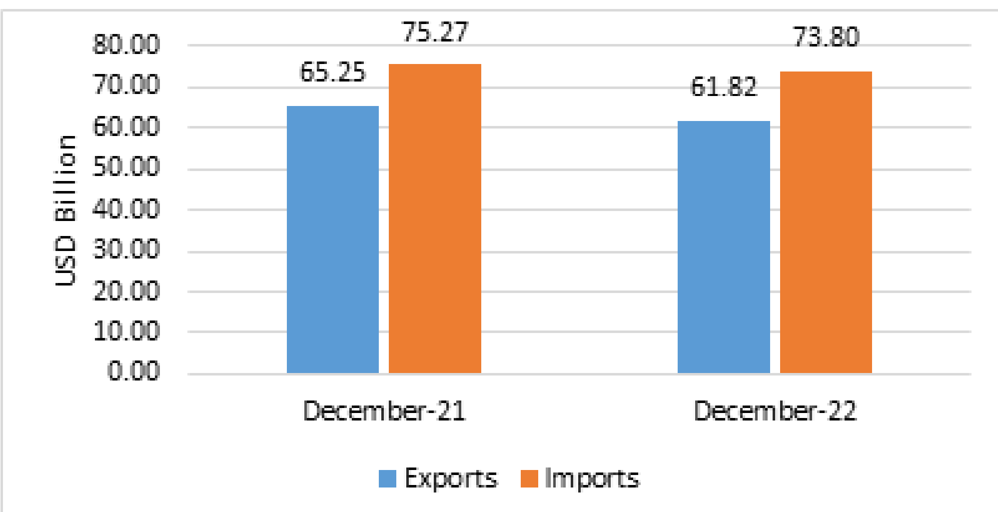
- India's overall export (Merchandise and Services combined) of USD 61.82 Billion in December 2022. The exports exhibited a negative growth of (-) 5.26 % over the same period last year. Overall import in December 2022 is estimated to be USD 73.80 Billion, exhibiting a negative growth of (-) 1.95 % over the same period last year.

Table: Trade during December 2022

		December 2022 (USD Billion)	December 2021 (USD Billion)
Merchandise	Exports	34.48	39.27
	Imports	58.24	60.33
Services*	Exports	27.34	25.98
	Imports	15.56	14.94
Overall Trade (Merchandise +Services) *	Exports	61.82	65.25
	Imports	73.80	75.27
	Trade Balance	-11.98	-10.02

Source- Ministry of Commerce & Industry

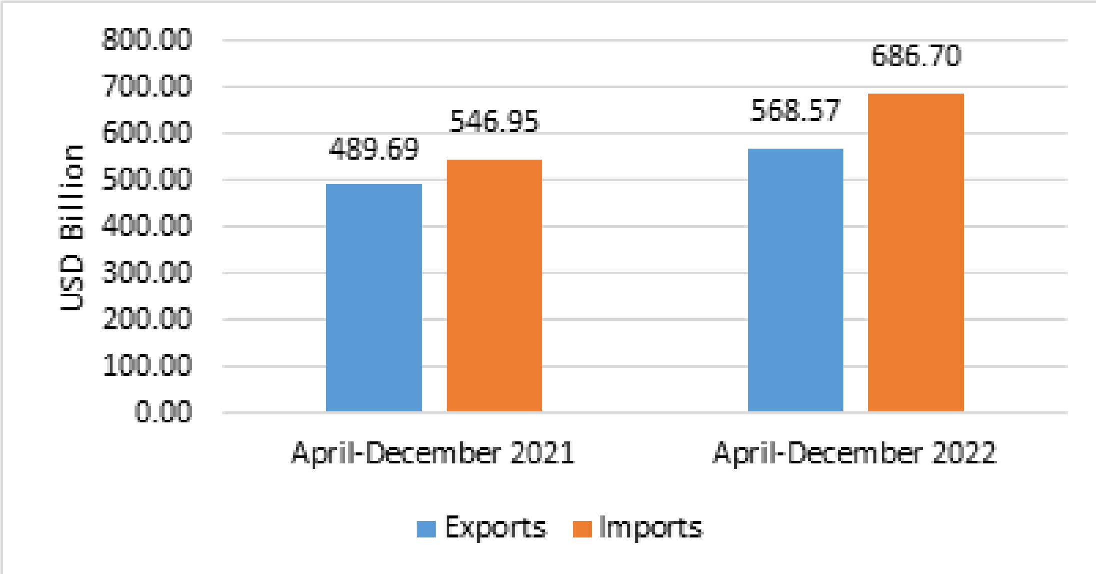
Figure- India's Overall trade during December 2022



Source- Ministry of Commerce & Industry

- India's overall exports (Merchandise and Services combined) in April-December 2022 are estimated to be USD 568.57 Billion. Overall imports in April-December 2022 are estimated to be USD 686.70 Billion

Fig 2: Overall Trade during April-December 2022



Source- Ministry of Commerce & Industry

Table 2: Trade during April-December 2022

		April-December 2022 (USD Billion)	April-December 2021 (USD Billion)
Merchandise	Exports	332.76	305.04
	Imports	551.70	441.50
Services*	Exports	235.81	184.65
	Imports	134.99	105.45
Overall Trade (Merchandise+ Services) *	Exports	568.57	489.69
	Imports	686.70	546.95
	Trade Balance	-118.12	-57.26

Source- Ministry of Commerce & Industry

6. Economic Survey and Union Budget 2023: Key Highlights

1. India to witness GDP growth of 6.0 % to 6.8 % in 2023-24, depending on the trajectory of economic and political developments globally. Economic survey 2022-23 projects a baseline GDP growth of 6.5 % in real terms in FY24.
2. The economy is expected to grow at 7 % (in real terms) for the year 2022-23, this follows an 8.7 % growth in the FY 2021-22.
3. Private Consumption as a percentage of GDP stood at 58.4% in Q2 of FY23, supported by a rebound in contact-intensive services such as trade, hotel and transport, which registered sequential growth of 16 % in real terms in Q2 of FY23 compared to the previous quarter.
4. Agriculture and allied sectors expected to grow by 3.5 %; industry by 4.1 % and services sector by 9.1 % in 2022-23.
5. Foreign Exchange Reserves touched US $ 563 billion as of December 31, 2022.
6. The average headline CPI-Combined inflation moderated to 6.8 % in 2022-23 (April-December) and WPI inflation reached 11.5% in 2022-23.
7. Merchandise exports were USD 332.8 bn for April-December 2022 exhibiting a growth of 16% from April-December 2021.
8. GVA of the industrial sector rose by 3.7% for the first half of FY 2022-23.
9. Credit growth to the micro, small, and medium enterprises (MSME) sector has been remarkably high, over 30.5 %, on average during Jan-Nov 2022.
10. The capital expenditure (capex) of the central government, which increased by 63.4 % in the first eight months of FY23, was another growth driver of the Indian economy in the current year.
11. RBI projects headline inflation at 6.8% in FY23, which is outside its target range return of migrant workers to construction activities helped housing market witnessing a significant decline in inventory overhang to 33 months in Q3 of FY23 from 42 months last year.
12. Surge in growth of exports in FY22 and the first half of FY23 induced a shift in the gears of the production processes from mild acceleration to cruise mode.
13. Private consumption as a percentage of GDP stood at 58.4 % in Q2 of FY23, the highest among the second quarters of all the years since 2013-14, supported by a rebound in contact-intensive services such as trade, hotel and transport.
14. The survey points to the lower forecast for growth in global trade by the World Trade Organization, from 3.5 % in 2022 to 1.0 % in 2023.

Union Budget 2023: Key Highlights

The Union Minister for Finance & Corporate Affairs, Smt Nirmala Sitharaman tabled the Union Budget 2023-24 in Parliament on 1st February, 2023. The Union Budget presented by the honorable Finance Minister appears to be growth-oriented budget with a long- term view of social and infrastructure development.

The Budget adopts the following seven priorities. They complement each other and act as the 'Saptarishi' guiding us through the Amrit Kaal.

1. Inclusive Development
2. Reaching the Last Mile
3. Infrastructure and Investment
4. Unleashing the Potential
5. Green Growth
6. Youth Power
7. Financial Sector

The key highlights of the budget are as follows:

1. Digital Public Infrastructure for Agriculture to be built as open source, open standard, interoperable public good. Will enable inclusive farmer-centric solutions & help improved access to farm inputs, market intel, support for Agri industry, startups.
2. Agriculture Accelerator Fund to be set up to encourage Agri startups by young entrepreneurs in rural areas, will bring innovative and affordable solutions for farmers' challenges, will also enhance profitability and bring modern tech
3. Rs. 10 lakh crore capital investment, a steep increase of 33% for third year in a row, to enhance growth potential and job creation
4. Aatmanirbhar Clean Plant Programme to boost availability of disease free, quality planting material for high value horticultural crops at outlay of Rs. 2,200 crores
5. Cluster based and value chain approach through PPPs to be adopted, to enhance productivity of extra-long staple cotton; this will involve collaboration between farmers, state and industry for input supplies, extension services and market linkages.
6. Agriculture Credit Target to be increased to Rs. 20 lakh crores, with focus on animal husbandry, dairy and fisheries
7. PM Vishwa Karma Kaushal Samman: For the first-time package of assistance for traditional artisans and craftspeople has been conceptualized, which will enable them to improve the quality, scale, and reach of their products, integrating with the MSME value chain.

8. New sub scheme of PM Matsya Sampada Yojana, with targeted investment of Rs. 6000 crores, to further enable activities of fishermen, fish vendors and micro and small entrepreneurs, improve value chain efficiencies and expand the market.
9. Agriculture Credit Target to be increased to Rs. 20 lakh crores, with focus on animal husbandry, dairy and fisheries
10. Railways: Capital outlay of Rs 2.40 lakh crore has been provided for Railways; this highest ever outlay is about nine times the outlay made in FY 2013-14
11. "India is largest producer and second largest exporter of Shree Anna, to make India a global hub for Shree Anna, Indian Institute of Millet Research Hyderabad will be supported as Centre of Excellence for sharing best practices at international level,"
12. 63,000 Primary Agricultural Credit Societies are being computerized with investment of Rs. 2,516 crores; model bylaws were formulated for PACS, national database is being prepared, with this, massive decentralized storage capacity to be set up.
13. 157 new nursing colleges to be established in colocation with existing 157 medical colleges set up since 2014
14. Mission to eliminate sickle cell anaemia by 2047 to be launched, will entail. awareness creation, universal screening of 7 crore people in 0 to 40 years in affected tribal areas, and counselling.
15. National Digital Library for Children and Adolescents to be set up for facilitating availability of quality books across languages, geographies and genres; states to set up physical libraries and provide infra to access the library resources
16. For business establishments required to have Permanent Account Number, the PAN will be used as a common identifier for all Digital Systems of specified government agencies:
17. 38,000 teachers and support staff to be recruited in next 3 years, for 740 Eklavya Model Residential Schools serving 3.5 lakh tribal students
18. Aspirational Blocks programme covering 500 blocks has been launched for saturation of govt. programmes; Pradhan Mantri Primitive Vulnerable Tribal Groups Development Mission is being launched to improve conditions of vulnerable tribal groups. The Mission will saturate these families with basic facilities such as safe housing, clean drinking water, improved access to education, health, nutrition and sustainable livelihood opportunities; Rs 15,000 crores to implement the Mission in 3 years.
19. Outlay for PM Awas Yojana is being enhanced by 66% to over Rs 79,000 crores
20. The 50-year interest-free loan to state governments to be continued for one more year, to spur investment in infra and to incentivize them for complimentary policy actions, with enhanced outlay of Rs. 1.3 lakh crores.

21. 100 labs for developing applications using 5G services to be set up in engineering institutions, to realize new range of opportunities, business models and employment potential.
22. National Green Hydrogen Mission without lay of Rs. 19,700 crores will facilitate transition to economy to low carbon intensity, our target is to reach annual production of 5 MMT by 2030
23. Mahila Samman Savings Certificate to allow maximum deposit of up to Rs 2 lakh having 7.5 pc interest:
24. Phase 3 of e-courts project to be launched with outlay of Rs. 7000 crores, for efficient administration of justice.
25. Green Credit Programme to be notified under the Environment (Protection) Act to incentivize and mobilize additional resources for environmentally sustainable and responsive actions.

Lessons from Economics

Foreign Direct Investment

A foreign direct investment refers to a purchase of a particular organization's interest by another foreign organization. Such an organization or investor is located in a different country than the organization whose interest is purchased. It involves a business decision whereby a significant stake is acquired in a foreign business. Generally, organizations undertake FDI to expand operations to a foreign location. FDI is a key element in international economic integration because it creates stable and long-lasting links between economies.

Functioning of FDI

Companies or governments considering a foreign direct investment (FDI) generally consider target firms or projects in open economies that offer a skilled workforce and growth prospects for the investor. FDI may include the provision of management, technology, and equipment as well. A key feature of foreign direct investment is that it establishes effective control of the foreign business or at least substantial influence over its decision making.

Foreign direct investments can be made in a variety of ways, including opening a subsidiary or associate company in a foreign country, acquiring a controlling interest in an existing foreign company, or by means of a merger or joint venture with a foreign company.

Types of Foreign Direct Investment

Foreign direct investments are commonly categorized as horizontal, vertical, or conglomerate.

- With a horizontal FDI, a company establishes the same type of business operation in a foreign country as it operates in its home country. A U.S.-based cellphone provider buying a chain of phone stores in China is an example.
- In a vertical FDI, a business acquires a complementary business in another country. For example, a U.S. manufacturer might acquire an interest in a foreign company that supplies it with the raw materials it needs.
- In a conglomerate FDI, a company invests in a foreign business that is unrelated to its core business. Because the investing company has no prior experience in the foreign company's area of expertise, this often takes the form of a joint venture.

Advantages of FDI

- FDI can foster and maintain economic growth, in both the recipient country and the country making the investment.
- On one hand, developing countries have encouraged FDI as a means of financing the construction of new infrastructure and the creation of jobs for their local workers. On the other

hand, multinational companies benefit from FDI as a means of expanding their footprints into international markets.

FDI and its impact in real world

- The net amounts of money involved with FDI are substantial, with more than $1.8 trillion of foreign direct investments made in 2021-22. The United States was the top FDI destination worldwide, followed by China, Canada, Brazil, and India. In terms of FDI outflows, the U.S. was also the leader, followed by Germany, Japan, China, and the United Kingdom.

- FDI inflows as a percentage of gross domestic product (GDP) is a good indicator of a nation's appeal as a long-term investment destination. The Chinese economy is currently smaller than the U.S. economy in nominal terms, but FDI as a percentage of GDP was 1.7% for China as of 2020, compared with 1.0% for the U.S. For smaller, dynamic economies, FDI as a percentage of GDP is often significantly higher: e.g., 110% for the Cayman Islands, 109% for Hungary, and 34% for Hong Kong.

FDI in India

Foreign corporations invest in India to benefit from the country's particular investment privileges such as tax breaks and comparatively lower salaries. This helps India develop technological know-how and create jobs as well as other benefits. These investments have been coming into India because of the government's supportive policy framework, vibrant business climate, rising global competitiveness and economic influence.

FDI inflows in India stood at $45.15 bn in 2014-15 and have consistently increased since then. Moreover, total FDI inflow grew by 65.3%, i.e., from $266.21 bn in 2007-14 to $440.01bn in 2014-21.

- India received the highest annual FDI inflows of $84.835 bn in FY 21-22 overtaking FY 20-21 FDI by $2.87 bn.

- Singapore (27.01%), USA (17.94%), Mauritius (15.98%), Netherland (7.86%) and Switzerland (7.31%) emerge as top 5 countries for FDI equity inflows into India FY 2021-22.

- Top 5 sectors receiving highest FDI Equity Inflow during FY 2021-22 are Computer Software & Hardware (24.60%), Services Sector (Fin., Banking, Insurance, Non-Fin/Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis, Other) (12.13%), Automobile Industry (11.89%), Trading 7.72% and Construction (Infrastructure) Activities (5.52%).

Oil Market

Crude oil price – Monthly Review

Oil prices advanced in the first two weeks of 2023, yet continuing hovering around the levels seen before Russia invaded Ukraine in February 2022. Conflicting supply-and-demand factors have increased uncertainty in oil price forecasts. Fears of a recession have intensified in both the US and Europe, which could hurt oil demand.

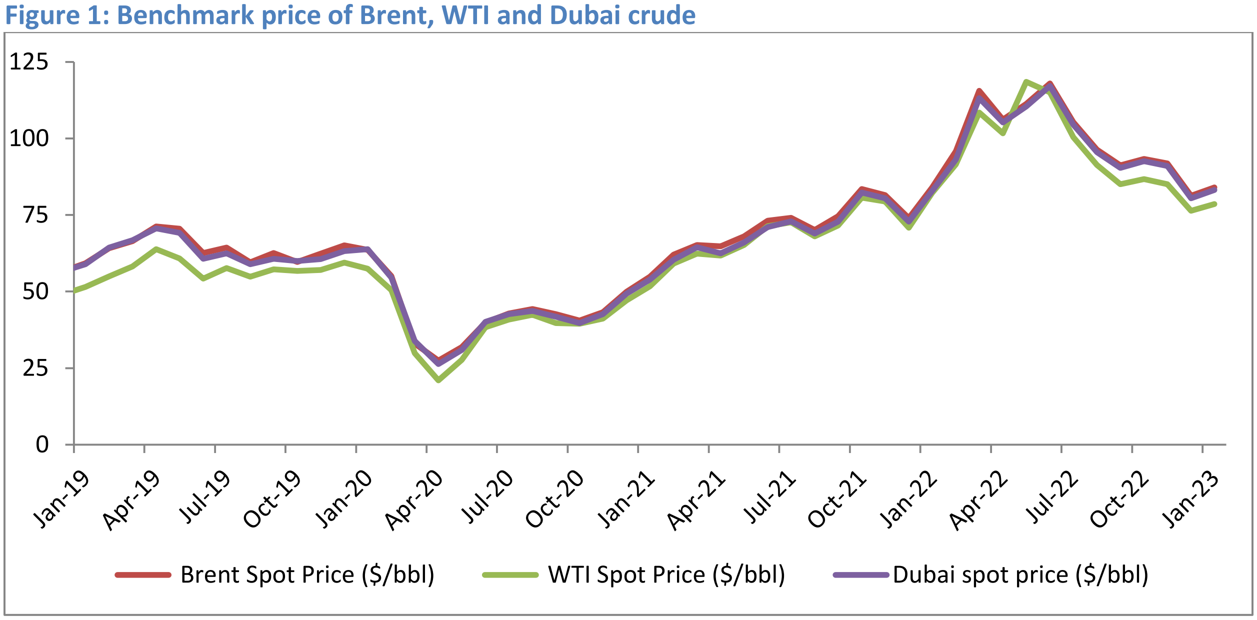
The actions of the world's central banks, which have continuously increased interest rates to fight surging inflation, along with an economic slowdown in China, have also influenced the prospects of falling demand for the commodity.

Further, extended sanctions against Russian oil exports – most recently a G7 $60 price cap on Russian crude oil – have led to uncertainty about supply from the world's second-largest producer. The EU has banned imports of all seaborne Russian crude oil and petroleum products, which make up 90% of the block's current oil imports from the country. The ban is part of wider international sanctions on Russia over its invasion of Ukraine. At the current price cap level, Russia would earn oil export revenues of about $10bn-$15bn a month, far lower than over $21bn a month, which Moscow earned.

As per IEA, Russia and China will be the major countries shaping the oil price forecast in 2023, as the oil prices will be driven by the balance between the tightening Russian supply and China's demand growth

Brent crude ranged an average to $80.34 a barrel and WTI ranged to $78.10 per barrel in the month of January.

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



Source: World Bank

- Brent crude price averaged $84.02 per bbl in January 2023, up by 3.4% on a month on month (MoM) and 0.1% on year on year (YoY) basis, respectively.
- WTI crude price averaged $78.54 per bbl in January 2023, up by 2.9% on a month on month (MoM) and down by 4.5% on year on year (YoY) basis, respectively.
- Dubai crude price averaged $83.17 per bbl in January 2023, up by 3.4% on a month on month (MoM) and 0.4% on year on year (YoY) basis, respectively.

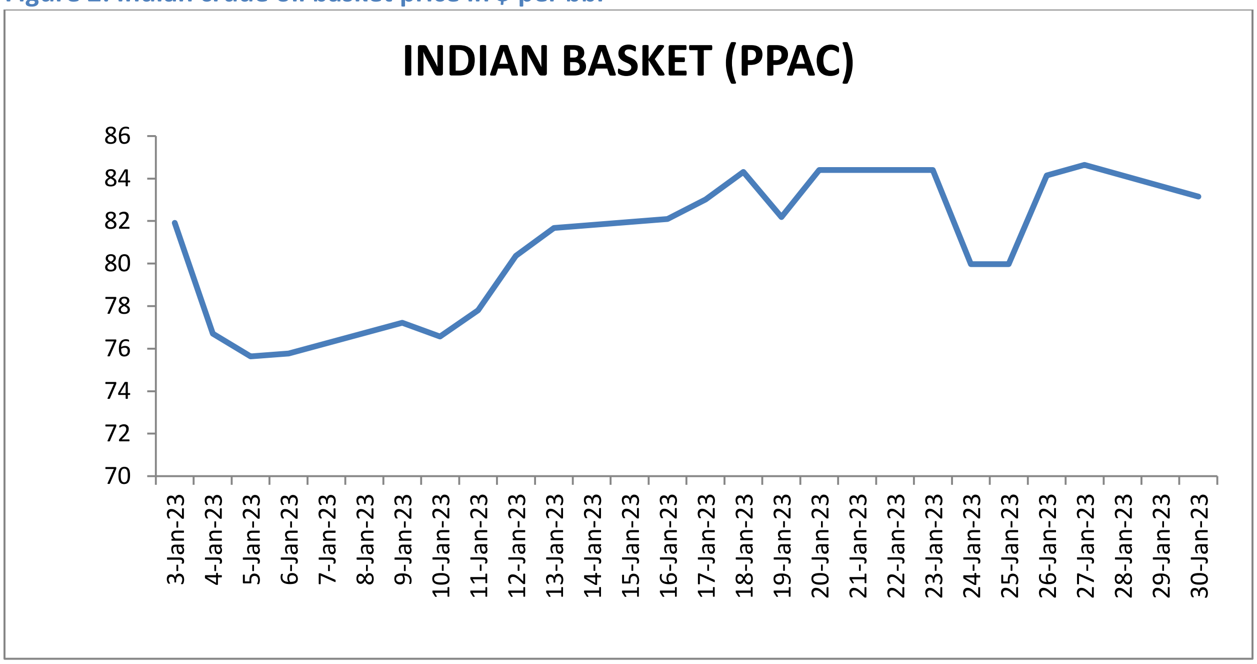
Table 1: Crude oil price in January, 2023

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	84.02	3.4%	0.1%
WTI	78.54	2.9%	-4.5%
Dubai	83.17	3.4%	0.4%

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 $80.73 per barrel in January 2023, up by 3.8% on Month on Month (M-o-M) and down by 3.7% on a year on year (Y-o-Y) basis, respectively.

Oil production situation

- World oil supply growth in 2023 is set to slow to 1 mb/d following last year's OPEC+ led growth of 4.7 mb/d. An overall non-OPEC+ rise of 1.9 mb/d will be tempered by an OPEC+ drop of 870 kb/d due to expected declines in Russia. The US ranks as the world's leading source of supply growth and, along with Canada, Brazil and Guyana, hits an annual production record for a second straight year.

- Russian oil exports fell by 200 kb/d m-o-m in December to 7.8 mb/d, as crude shipments to the EU declined after the EU crude embargo and G7 price cap came into effect. Russian diesel exports surged to a multi-year high of 1.2 mb/d, of which 720 kb/d was destined for the EU. Record discounts for Russian benchmark Urals grade saw Russian revenues slip by $3 bn m-o-m to $12.6 bn.

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

Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023
Americas	*26.66*	*27.64*	*27.73*	*28.09*	*28.46*	*27.98*
of which US	19.03	19.80	20.10	20.30	20.53	20.19
Europe	*3.57*	*3.93*	*3.91*	*3.80*	*3.93*	*3.89*
Asia Pacific	0.48	0.50	0.48	0.50	0.48	0.49
Total OECD	**30.72**	**32.07**	**32.12**	**32.39**	**32.88**	**32.37**
China	4.46	4.51	4.50	4.47	4.47	4.49
India	0.77	0.79	0.78	0.77	0.76	0.78
Other Asia	2.30	2.37	2.36	2.33	2.35	2.35
Latin America	6.34	6.49	6.67	6.71	6.78	6.67
Middle East	3.33	3.34	3.36	3.39	3.39	3.37
Africa	1.32	1.32	1.33	1.35	1.34	1.33
Russia	11.03	10.21	10.08	10.18	10.23	10.18
Other Eurasia	2.84	3.09	3.05	3.02	3.06	3.06
Other Europe	0.11	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	**32.49**	**32.21**	**32.25**	**32.32**	**32.50**	**32.32**
Total Non-OPEC production	63.21	64.28	64.36	64.71	65.37	64.69
Processing gains	2.40	2.47	2.47	2.47	2.47	2.47
Total Non-OPEC liquids production	**65.61**	**66.75**	**66.83**	**67.18**	**67.84**	**67.16**
Previous estimate	**65.57**	**66.50**	**66.86**	**67.19**	**67.88**	**67.11**
Revision	0.04	0.25	-0.02	-0.01	-0.04	0.04

Source: OPEC

- From the above table, it can be inferred, that the total non-OPEC liquids production is expected to reach 67.16 mb/d by 2023.
- OPEC NGLs and non-conventional liquids production in 2022 is forecasted (as per OPEC monthly report) to grow by 0.1 mb/d to average 5.4 mb/d and increase by 50 tb/d to average 5.4 mb/d in 2023.
- OPEC-13 crude oil production averaged 28.97 mb/d in December 2022, higher by 91 tb/d m-o-m.

Oil demand situation

- Global oil demand is set to rise by 1.9 mb/d in 2023, to a record 101.7 mb/d, with nearly half the gain from China following the lifting of its Covid restrictions. Jet fuel remains the largest source of growth, up 840 kb/d. OECD oil demand slumped by 900 kb/d in 4Q22 as weak industrial activity and weather effects lowered use, while non-OECD demand was 500 kb/d higher.

- Russia and China are expected to dominate the 2023 oil market outlook as Russian supply slows under the full impact of sanctions and China will drive nearly half this global demand growth even as the shape and speed of its reopening remains uncertain.

Table 3: World Oil demand, mb/d

	2022	1Q23	2Q23	3Q23	4Q23	2023	Growth	%
Total OECD	**46.19**	**46.06**	**45.74**	**47.04**	**47.23**	**46.52**	**0.33**	**0.72**
~ of which US	*20.51*	*20.46*	*20.54*	*20.88*	*20.77*	*20.66*	*0.15*	*0.74*
Total Non-OECD	**55.36**	**54.98**	**54.90**	**54.86**	**56.24**	**55.25**	**1.89**	**3.53**
~ of which India#	*5.16*	*5.41*	*5.44*	*5.21*	*5.59*	*5.41*	*0.25*	*4.94*
~ of which China	14.76	14.90	15.20	15.20	15.78	15.27	0.51	3.48
Total world	**99.55**	**101.04**	**100.65**	**101.90**	**103.47**	**101.77**	**2.22**	**2.23**

Source: OPEC monthly report, January 2023

Note: 2022 = Estimate and 2023 = Forecast. Totals may not add up due to independent rounding*

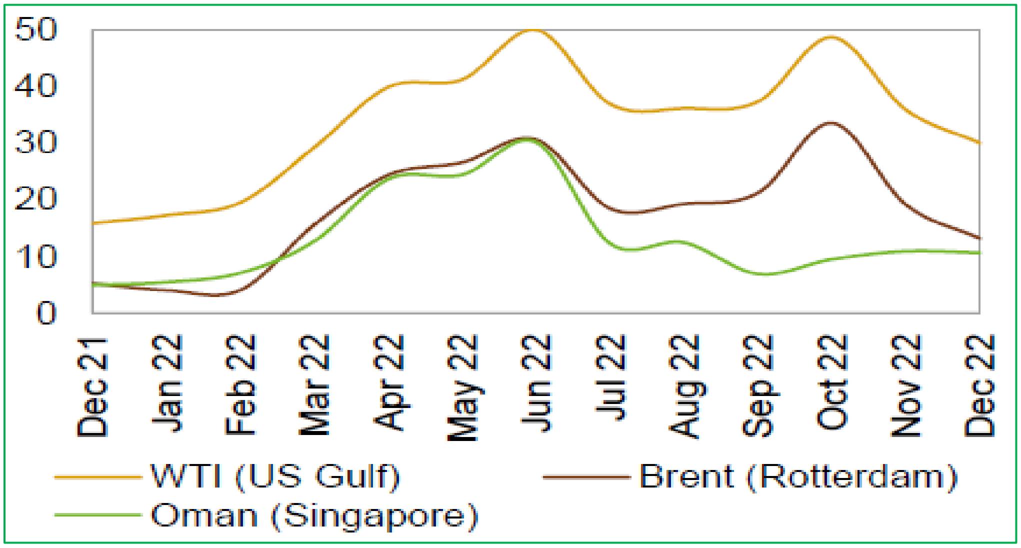
Global petroleum product prices

USGC refining margins against WTI extended the downward trend to show solid loss affected by the negative performance at the top and middle sections of the barrel. This, in turn, was a reflection of rising product inventory levels as refiners continued to ramp up processing rates following the most recent heavy maintenance season. A winter storm affected operations in over 20 refineries in the US Gulf and in the Midwest causing the loss of nearly 6 mb/d of refining capacity. The disruption in operations was quickly restored in most refineries, however, the monthly refinery throughput was significantly affected, although most product inventories showed growth.

Refinery margins in Rotterdam against Brent declined for the second consecutive month with weakness manifested all across the barrel. Weak product exports, seasonally suppressed demand amid high inflation and weaker fuel requirements from the manufacturing sector, all combined to weigh on European fuel markets and refining margins, while product supply rose.

Refinery throughput in Europe increased by 370 tb/d to average 10.16 mb/d according to preliminary data. Refinery margins against Brent in Europe averaged $13.18/b in December, down by $5.94/b compared with a month earlier but were higher by $7.94 y-o-y.

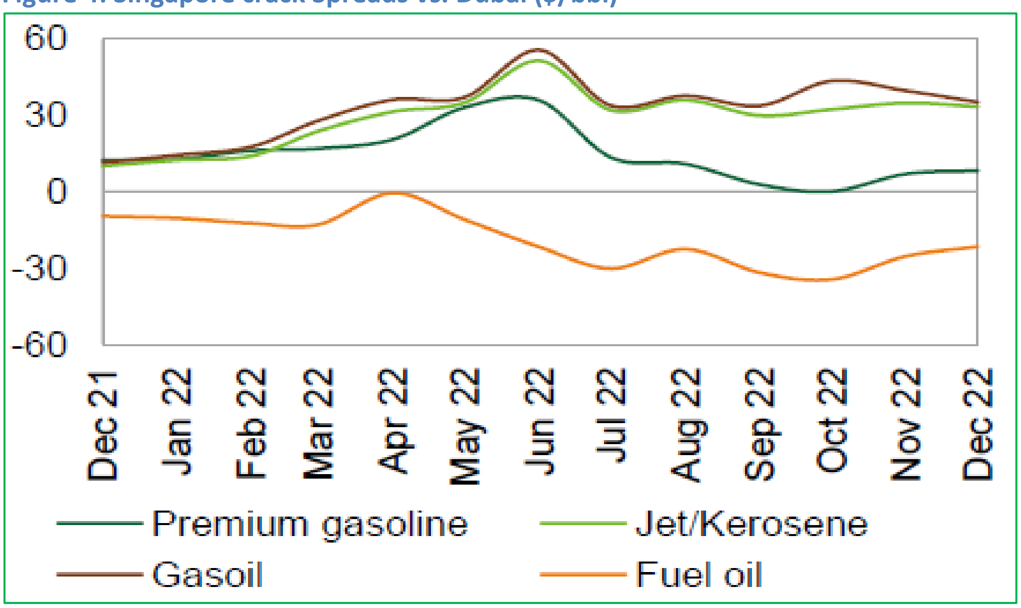
Figure 3: Refining Margins ($/bbl)



Source: Argus and OPEC

The Asian gasoline 92 crack spread recovered some ground over the month, mainly supported by robust consumption levels within the region. The Singapore gasoline crack spread against Oman in December averaged $8.27/bbl, up by $1.28 m-o-m but down by $4.21/bbl y-o-y.

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



Source: Argus and OPEC

The Singapore gasoil crack spread represented the sole negative performer across the barrel in December. The Singapore gasoil crack spread against Oman averaged $35.32/b, down by $4.47 m-o-m and but up by $23.69 y-o-y.

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

Singapore product prices	Price ($/b) in December 2022	MoM (%) change	YoY (%) change
Naphtha	66.41	-10.5%	-14.7%
Premium gasoline (unleaded 95)	89.40	-9.0%	1.7%
Regular gasoline (unleaded 92)	85.36	-8.3%	-0.5%
Jet/Kerosene	110.54	-8.7%	32.4%
Gasoil/Diesel (50 ppm)	113.53	-10.7%	32.5%
Fuel oil (180 cst 2.0% S)	110.54	-11.9%	30.8%
Fuel oil (380 cst 3.5% S)	55.56	-8.6%	-12.8%

Source: OPEC

Petroleum products consumption in India

Monthly Review:

- Overall consumption of all petroleum products in December 2022 with a volume of 19.6 MMT registered a growth of 6.31% on volume of 18.4 MMT in December 2021.

- MS (Petrol) consumption during the month of December 2022 with a volume of 2.98 MMT recorded a growth of 5.90% on volume of 2.816 MMT in December 2021.

- HSD (Diesel) consumption during the month of December 2022 with a volume of 7.78 MMT recorded a growth of to 6.49% on volume of 7.30 MMT in the month of December 2021.

- LPG consumption during the month of December 2022 with a volume of 2.58 MMT registered a growth of 4.04% over the volume of 2.48 MMT in the month of December 2021.

- ATF consumption during December 2022 with a volume of 0.659 MMT registered a growth of 19.37% over the volume of 0.552 MMT in December 2021.

- Bitumen consumption during December 2022 with a volume of 0.662 MMT registered a de-growth 4.68% over volume of 0.695 MMT in the month of December 2021.

- Kerosene consumption registered de-growth of 66.73% during the month of December 2022 as compared to December 2021.

Table 5: Petroleum products consumption in India, December 2022

CONSUMPTION OF PETROLEUM PRODUCTS (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,576	4.4%	4.0%
Naphtha	1,105	9.6%	-7.0%
MS	2,983	4.3%	5.9%
ATF	659	6.7%	19.4%
SKO	40	3.3%	-66.7%
HSD	7,779	0.2%	6.5%
LDO	65	15.0%	-29.7%
Lubricants & Greases	424	3.9%	7.1%
FO & LSHS	622	12.8%	14.8%
Bitumen	662	-8.3%	-4.7%
Petroleum coke	1,302	13.6%	22.8%
Others	1,380	14.6%	15.8%
TOTAL	**19,597**	**4.0%**	**6.3%**

Source: PPAC

Natural Gas Market

Natural Gas Price – Monthly Review

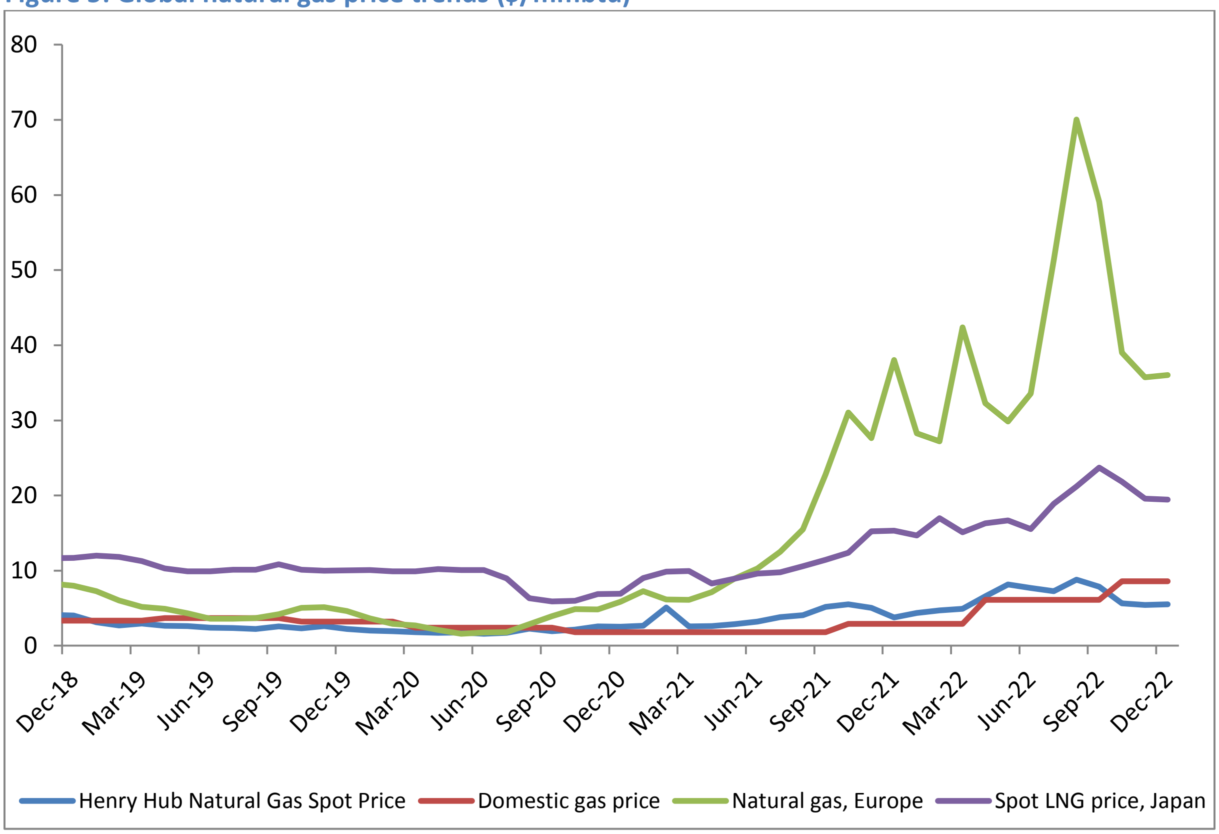
- Natural gas spot prices at the U.S. Henry Hub benchmark averaged $5.53 per million British thermal units (MMBtu) in December 2022. Natural gas prices started to increase due to higher winter natural gas demand and rising LNG exports.

- The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe traded at average of $36.04 per MMBtu. Starting 2023, the price of natural gas at the Dutch Title Transfer Facility (TTF) dropped to the level before the start of Russia's Ukraine War – slightly. Drop in Gas price was facilitated by air temperature, which is higher than the norm, use of gas in facilities and replacement of Russian gas with supplies from other various other regions of the world. Netherlands opened a new terminal in Eemshaven. Further, European businesses and private consumers have also successfully reduced gas consumption by ~20% in response to high prices and recommendations from their governments.

- Japan Liquefied Natural Gas Import Price averaged at $19.47 per MMBtu for December 2022, down from $19.59 per MMBtu in November 2022. Japan's Ministry of Economy, Trade and Industry (METI) is planning a strategic LNG reserve to ensure the country has enough natural gas to meet domestic demand as global competition ramps up. METI's proposal is primarily aimed at preventing gas shortages and preparing Japan, one of the world's largest buyers of liquefied natural gas, for battling Europe for cargoes in the years ahead as the continent displaces Russian imports. The proposal asks Japanese LNG importers to secure supply via term contracts. Importers would be free to sell their "buffer" LNG cargoes into the international market when they aren't needed. During any fuel shortage emergencies, though, the government would ask sellers to redirect the LNG to regional power and gas companies that are most in need.

- The price of domestically produced natural gas is $8.57 per million British thermal unit (MMBtu) from October 1, 2022 to March 31, 2023. The price of domestic gas price has been hiked by 40% from the previous revision which was $6.1 per MMBtu for April 1, 2022, to September 30, 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 $9.92 per MMBtu to $12.46 per MMBtu.

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



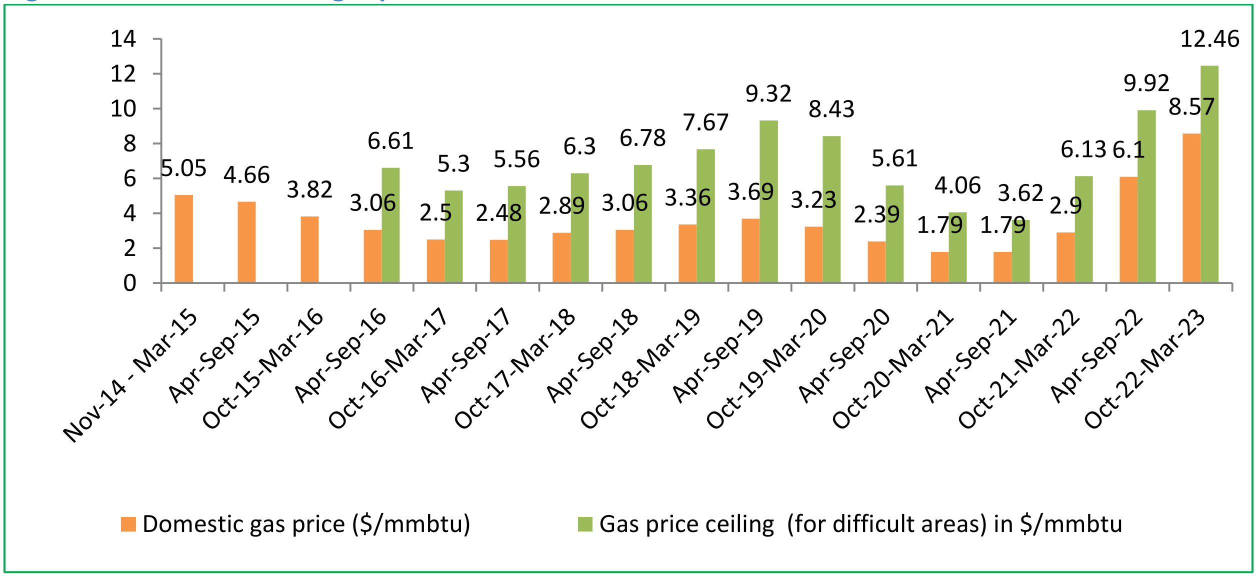
Source: EIA, World Bank

Table 6: Gas price

Natural Gas	Price ($/MMBTU) in December 2022	MoM (%) change	YoY (%) change
India, Domestic gas price	8.57	0%	195.5%
India, Gas price ceiling – difficult areas	12.46	0%	103.3%
Henry Hub	5.53	1.5%	47.1%
Natural Gas, Europe	36.04	0.9%	-5.2%
Liquefied Natural Gas, Japan	19.47	-0.6%	27.1%

Source: EIA, PPAC, World Bank

Figure 6: Domestic natural gas price



Source: PPAC

Indian Gas Market

- Gross production of natural gas for the month of December 2022 was 2951 MMSCM (increase of 1.9% over the corresponding month of the previous year).
- Total imports of LNG (provisional) during the month of December 2022 were 2266 MMSCM (decrease of 11.5% over the corresponding month of the previous year).
- Natural gas available for sale during December 2022 was 4694 MMSCM (decrease of 4.1% over the corresponding month of the previous year).
- Total consumption during December 2022 was 4766 MMSCM (provisional). Major consumers were fertilizer (34%), City Gas Distribution (CGD) (21%), Power (14%), Refinery (6%) and Petrochemicals (4%).

Monthly Report on Natural gas production, imports and consumption – December 2022

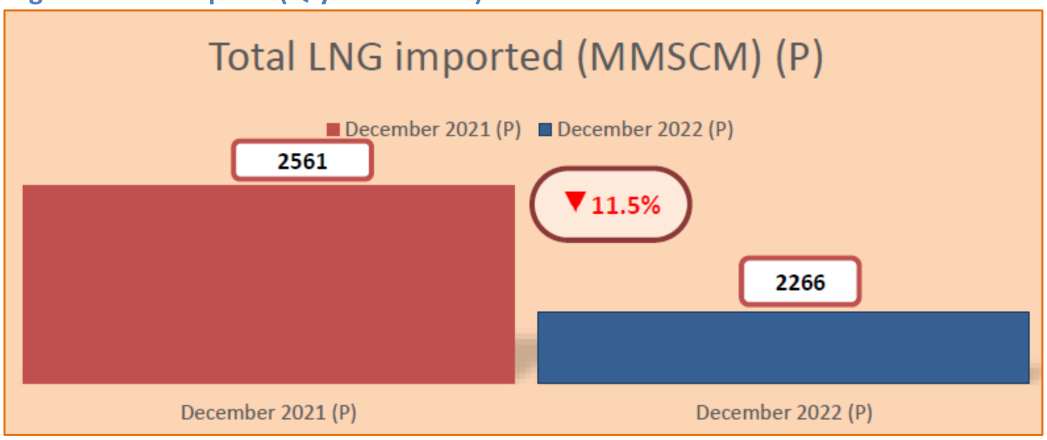
1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of December 2022 was 2951 MMSCM (increase of 1.9% over the corresponding month of the previous year).

2. LNG imports:

Total imports of LNG (provisional) during the month of December 2022 were 2266 MMSCM (decrease of 11.5% over the corresponding month of the previous year) 2561 MMSCM.

Figure 8: LNG imports (Qty in MMSCM)

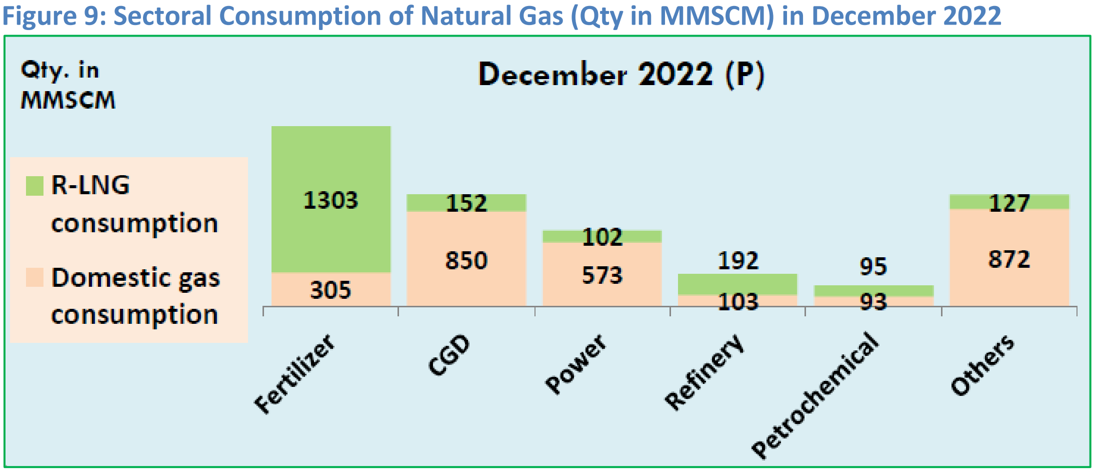


Source: PPAC

3. Sectoral Consumption of Natural Gas:

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

Figure 9: Sectoral Consumption of Natural Gas (Qty in MMSCM) in December 2022



Source: PPAC

Key developments in Oil & Gas sector

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

1. Production of Crude Oil

Indigenous crude oil and condensate production during December 2022 was down by 1.1% than that of December 2021 as compared to a de-growth of 1.1% during November 2022. OIL registered a growth of 7.0% and ONGC registered a de-growth of 0.237% during December 2022 as compared to December 2021. PSC registered de-growth of 7.1% during December 2022 as compared to December 2021. De-growth of 1.3% was registered in the total crude oil and condensate production during April - December 2022 over the corresponding period of the previous year.

2. Production of Natural Gas

Gross production of natural gas for the month of December 2022 (P) was 2951 MMSCM which was higher by 1.9% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 25868 MMSCM for the current financial year till December 2022 was higher by 0.8% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Crude oil processed during December 2022 was 22.3 MMT, which was 3.7% higher than December 2021 as compared to a de-growth of 8.9% during November 2022. Growth of 6.4% was registered in the total crude oil processing during April-December 2022 over the corresponding period of the previous year.

4. Production of Petroleum Products

Production of petroleum products saw a growth of 3.7% during December 2022 over December 2021 as compared to a de-growth of 9.3% during November 2022. Growth of 5.4% was registered in the total POL production during April-December 2022 over the corresponding period of the previous year.

Key Policy developments in Energy sector

Commission for Air Quality Management (CAQM) focused on shifting of industries to PNG/ cleaner fuels and use of coal stands completely banned in the entire NCR

Continuing its concerted efforts to abate air pollution arising out of emissions from highly polluting fossil fuels like coal, furnace oil, etc., the Commission for Air Quality Management in NCR & Adjoining Areas

(CAQM) has advised Coal India Limited (CIL) and State Governments of Haryana and Uttar Pradesh (U.P.), to ensure that coal is not supplied/ allotted by various coal companies of CIL to various suppliers/ agents of CIL operating in the National Capital Region (NCR).

Moreover, the Commission has also advised the entities/ units/ industries including traders and dealers of coal to ensure compliance and discontinue coal supply in NCR for any kind of usage/ stocking/ selling/ trading in entire NCR except for Thermal Power Plants (TPPs). Statutory directions of the Commission require complete elimination of use of coal and other unapproved fuels for various operations/ applications across all sectors (including industrial, commercial and miscellaneous applications), w.e.f. 01st January, 2023 in the entire NCR.

In compliance of the Commission's directions, 84 industrial units across NCR areas of Haryana, U.P. & Rajasthan which were hitherto not using approved fuels, closed down their operations temporarily/ permanently on their own. Since last 3 months w.e.f. 01.10.2022, only 21 industrial units were found using highly polluting unapproved fuels like coal, furnace oil, etc. and those units have been closed pursuant to CAQM closure directions. Beyond 01.01.2023, the compliance has further improved and only 02 units were found using such heavily polluting fuels during inspection, thus indicating satisfactory compliance of Statutory Directions of the Commission.

Cabinet approves National Green Hydrogen Mission

The Union Cabinet, chaired by the Hon'ble Prime Minister Shri Narendra Modi, has approved National Green Hydrogen Mission. The initial outlay for the Mission will be Rs.19,744 crore, including an outlay of Rs.17,490 crore for the SIGHT programme, Rs.1,466 crore for pilot projects, Rs.400 crore for R&D, and Rs. 388 crores towards other Mission components. MNRE will formulate the scheme guidelines for implementation of the respective components.

The Mission will result in the following likely outcomes by 2030:

- Development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum with an associated renewable energy capacity addition of about 125 GW in the country
- Over Rs. Eight lakh crores in total investments
- Creation of over Six lakh jobs
- Cumulative reduction in fossil fuel imports over Rs. One lakh crore
- Abatement of nearly 50 MMT of annual greenhouse gas emissions

The Mission will have wide ranging benefits- creation of export opportunities for Green Hydrogen and its derivatives; Decarbonization of industrial, mobility and energy sectors; reduction in dependence on imported fossil fuels and feedstock; development of indigenous manufacturing capabilities; creation of employment opportunities; and development of cutting-edge technologies. India's Green Hydrogen production capacity is likely to reach at least 5 MMT per annum, with an associated renewable energy capacity addition of about 125 GW. The targets by 2030 are likely to bring in over Rs. 8 lakh crore investments and create over 6 lakh jobs. Nearly 50 MMT per annum of CO_2 emissions are expected to be averted by 2030.

All concerned Ministries, Departments, agencies and institutions of the Central and State Governments will undertake focused and coordinated steps to ensure successful achievement of the Mission objectives. Ministry of New & Renewable Energy will be responsible for overall coordination and implementation of the Mission.

Govt. reduces windfall tax on crude oil, export of diesel, ATF

The government has reduced windfall tax on crude oil to Rs 1900 per tonne from Rs 2100 per tonne. It has also reduced levy on ATF to Rs 3.5 per litre from earlier Rs 4.5 per litre and has reduced export duty on diesel to Rs 5 per litre, including cess.

India first imposed windfall profit taxes on July 1, 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.

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