FIPI

Federation of
Indian Petroleum Industry

POLICY & ECONOMIC REPORT

Oil & Gas Market

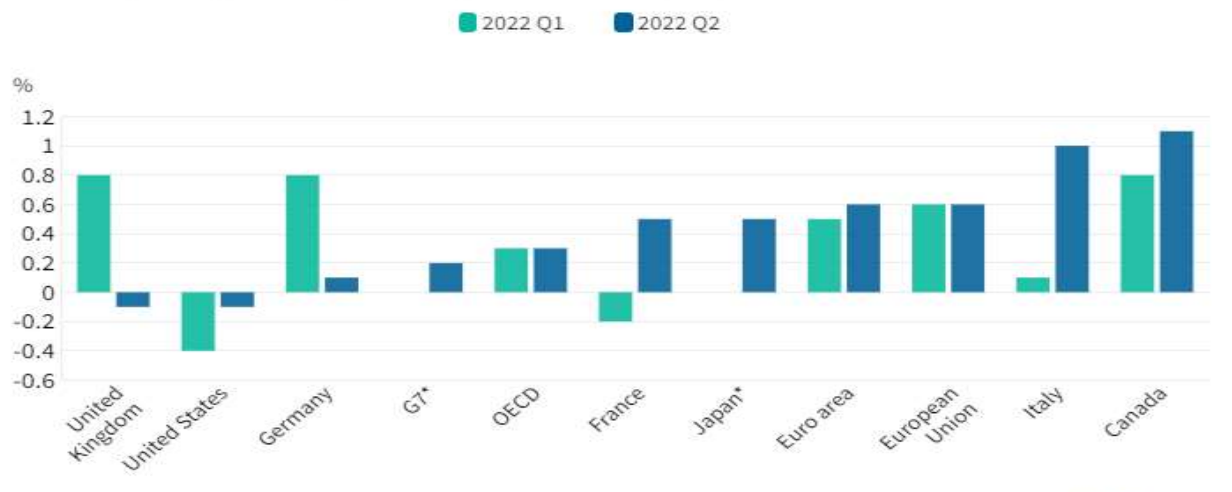
September 2022

Table of Contents

Executive Summary

According to OECD, global economic growth is forecasted at 3.2% in 2022 and 2.2% in 2023, compared with 6.1% in 2021.Economic growth in developed economies remained weak in the second quarter of this year, as the war in Ukraine hampered output in many nations. According to OECD, several shocks have hit a world economy which include higher-than-expected inflation worldwide - especially in the United States and major European economies - triggering tighter financial conditions; a worse-than-anticipated slowdown in China, reflecting COVID-19 outbreaks and lockdowns; and further negative spill overs from the war in Ukraine.

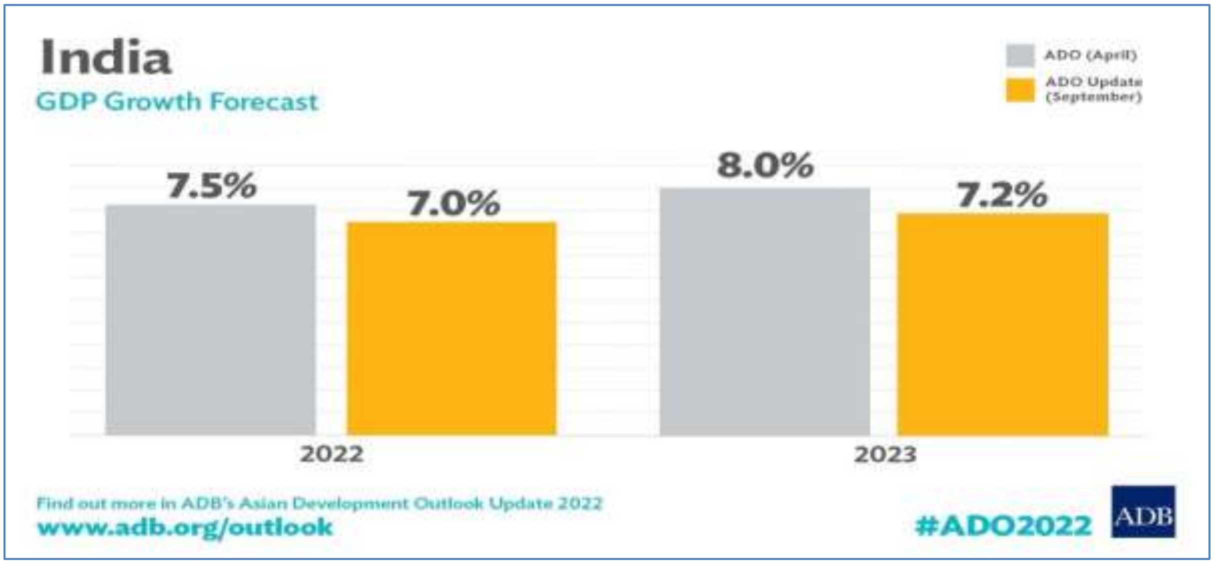
Figure 1: Gross domestic product (quarter-on-quarter change)
Percentage change on the previous quarter, seasonally adjusted data



Source: OECD (2022) Quarterly National Accounts (Database)

Inflation is impacting the global economy in a major way and continues to rattle the global economy. The war in Ukraine has created energy supply disruptions, impacting food and electricity prices, as well as consumer sentiment. Energy price shocks have caused rising global inflation and tighter monetary conditions, slowing global growth. US consumer prices have been on an upswing during the quarter with Fed raising the interest rates to reduce the inflationary pressures.

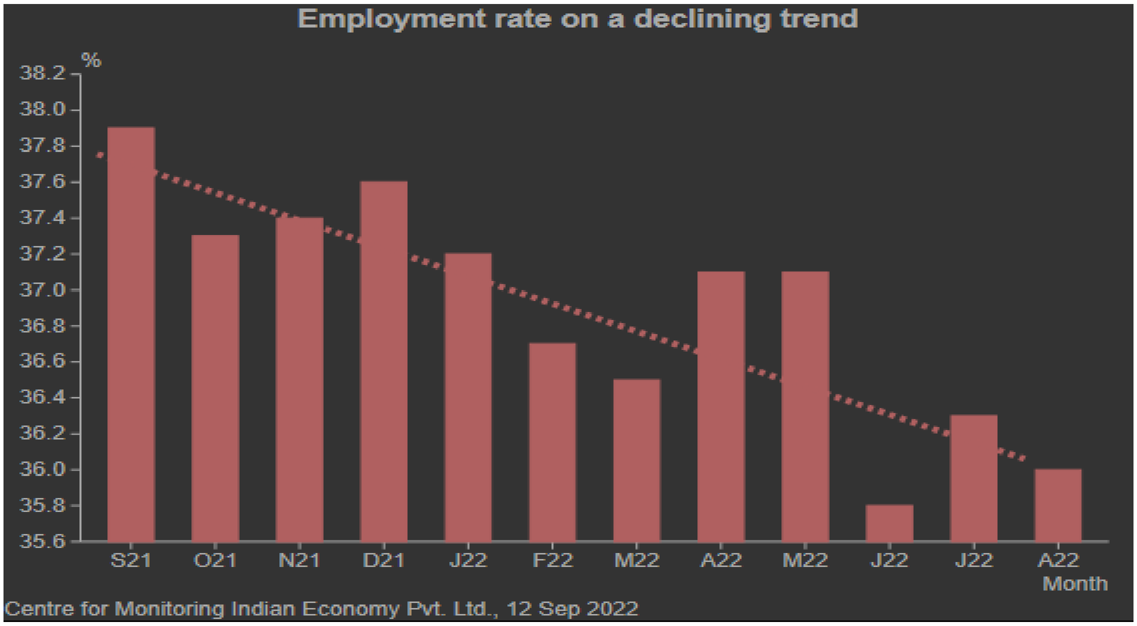
According to Asia Development Bank, India's growth has been forecasted at 7.00% for 2022 in an update of its flagship economic publication, *Asian Development Outlook (ADO) 2022*. The growth outlook for 2023 is also revised down to 7.2% from 8.0%.



The Reserve Bank of India (RBI) on September 30th, 2022 announced a 50 basis points hike in the repo rate stepping up its fight against persistently high inflation. The repo rate now stands at 5.9%. This is the fourth consecutive rate hike after a 40 basis points increase in May and 50 basis points hike each in June and August. In all, RBI has raised benchmark rate by 1.90 per cent since May this year. Reserve Bank of India leaves inflation projection for FY23 unchanged at 6.7% on upside risks to food and energy prices. The real GDP for FY23 has been revised at 7% from earlier forecast of 7.2 per cent for FY'23.

India's retail inflation rate rose to 7.0% in August from 6.71% in the previous month primarily because of higher food and energy prices. In its August policy, RBI’s monetary policy panel had projected inflation at 6.7% in FY23, with July-September at 7.1%, October-December at 6.4%, and January-March at 5.8%. The aggregate domestic demand is expected to show a surge with the upcoming festive season, thus leading to putting higher pressure on prices. Further, the rise in crude prices because of the Russia-Ukraine conflict and reluctance of the Organization of the Petroleum Exporting Countries (OPEC) to increase output is also putting pressure on energy prices.

The joblessness rate in India has hit a one-year high of 8.3% in August, according to data from the Centre for Monitoring Indian Economy (CMIE). While both rural and urban unemployment increased significantly, the overall rise is driven by joblessness in urban areas. The urban unemployment touched 9.57% in August as against 8.21% the previous month. At the same time, rural unemployment surged to 7.68% from 6.14% in July.



On the external front, the rupee has depreciated 9.7 per cent against the US dollar over a year and with the RBI stemming the rupee's weakness through dollar sales, its reserves have dropped to their lowest levels since October, 2020. The headline foreign exchange reserves have decline to $545.65 billion as on September 16, 2022 primarily owing to revaluation in the face of a stronger dollar. The rupee has depreciated 9.7 per cent against the dollar since September 2021. Year-to-date, it has depreciated 8.9 per cent.

Oil prices drop to nine-month low as concerns about a possible recession continued to trouble investors amid a strong dollar and monetary tightening by central banks globally to rein in inflation. As per media reports, Crude is on its way to a substantial quarterly slump, as leading central banks, including the US Federal Reserve, raised interest rates aggressively to fight inflation, thereby hurting the outlook for energy demand and sapping investors' appetite for risk.

Global supplies of oil are tight, but demand for the fuel has also been weak. Energy use in China, which has been a principal driver of oil price over the last two decades, is down sharply because the country's government has frequently locked down big cities and regions to prevent the spread of the coronavirus. Further, surging US dollar limits the ability of the non-dollar consumers to purchase crude oil.

However, prices of crude are set to increase in the long-term, owing to the disruptions in the oil market from the Russia-Ukraine war, with European Union sanctions banning the Russian crude oil. Natural gas spot prices at the U.S. Henry Hub benchmark averaged $8.81 per million British thermal units (MMBtu) in August 2022. High temperatures across the US, boosted the electricity demand, thereby increasing the prices of the natural gas.

Economy in Focus

Global Economic Growth

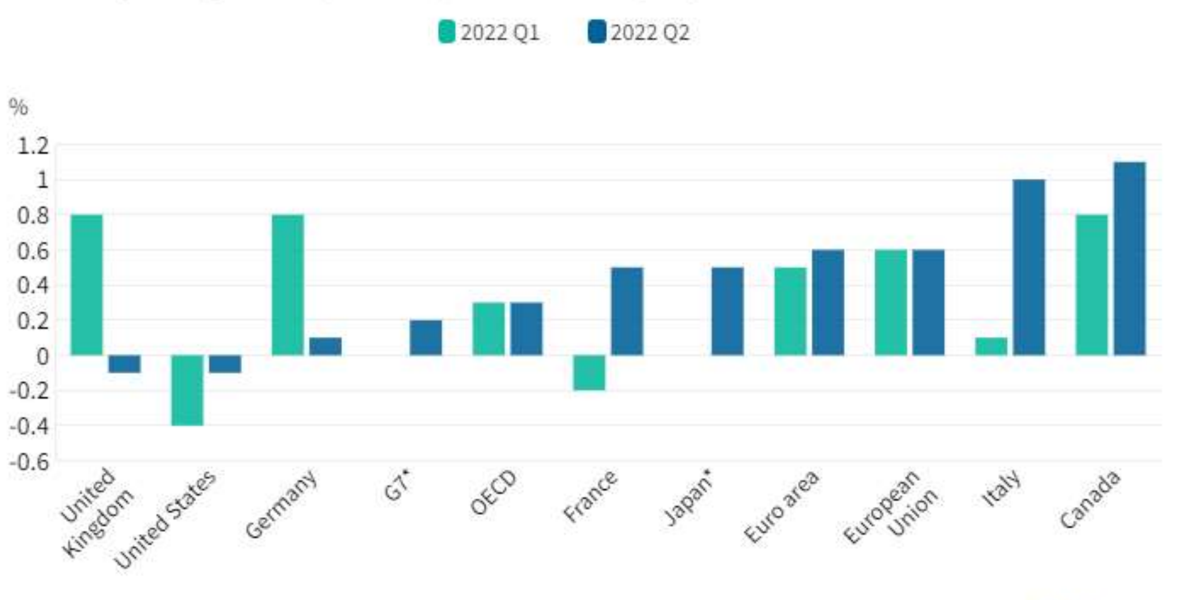
According to OECD, global economic growth is forecasted at 3.2% in 2022 and 2.2% in 2023, compared with 6.1% in 2021.Economic growth in developed economies remained weak in the second quarter of this year, as the war in Ukraine hampered output in many nations.

- According to the Organization for Economic Cooperation and Development (OECD), the combined gross domestic product of its 38 members expanded by 0.3% in the second quarter over the first quarter.

- In the G7, quarter-on-quarter GDP growth increased 0.2% compared with zero growth in Q1 2022.

- According to OECD, this reflected a mixed picture, with contractions seen in the US (minus 0.1%) and the UK (minus 0.1%), and a sharp slowdown in economic growth in Germany (0.1% compared to 0.8% in the previous quarter). That was offset by positive growth in Canada (1.1%), France (0.5%), Italy (1%) and Japan (0.5%).

Figure 1: Gross domestic product (quarter-on-quarter change)
Percentage change on the previous quarter, seasonally adjusted data



Source: OECD (2022) Quarterly National Accounts (Database)

- According to OECD, several shocks have hit a world economy which include higher-than-expected inflation worldwide - especially in the United States and major European economies - triggering tighter financial conditions; a worse-than-anticipated slowdown in China, reflecting COVID-19 outbreaks and lockdowns; and further negative spill overs from the war in Ukraine.

Table 1 – Quarterly (quarter-on-quarter) real GDP growth

Percentage change on the previous quarter, seasonally adjusted data	2020			2021				2022		cumulative growth Q4 2019 to Q2 2022
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
OECD area	-10.4	9.5	1.0	0.8	1.7	1.1	1.3	0.3	0.3	1.5
G20	-6.8	8.7	1.7	0.7	0.5	1.9	1.3	0.7	..	..
European Union	-11.3	11.9	-0.2	0.1	2.0	2.2	0.6	0.6	0.6	2.0
Euro area	-11.7	12.8	-0.4	-0.1	2.1	2.3	0.4	0.5	0.6	1.4
G7	-10.3	9.5	0.9	0.5	1.7	0.9	1.2	0.0	0.2	1.6
Canada	-11.0	9.0	2.2	1.1	-0.8	1.3	1.6	0.8	1.1	1.9
France	-13.5	18.4	-0.9	0.1	1.0	3.3	0.6	-0.2	0.5	1.0
Germany	-9.5	9.0	0.6	-1.5	1.9	0.8	0.0	0.8	0.1	0.0
Italy	-12.7	16.1	-1.6	0.2	2.6	2.7	0.7	0.1	1.0	1.0
Japan	-8.0	5.5	1.6	-0.4	0.5	-0.5	1.0	0.0	0.5	0.2
United Kingdom	-19.4	17.6	1.5	-1.2	5.6	0.9	1.3	0.8	-0.1	0.6
United States	-8.9	7.5	1.1	1.5	1.6	0.6	1.7	-0.4	-0.1	2.6

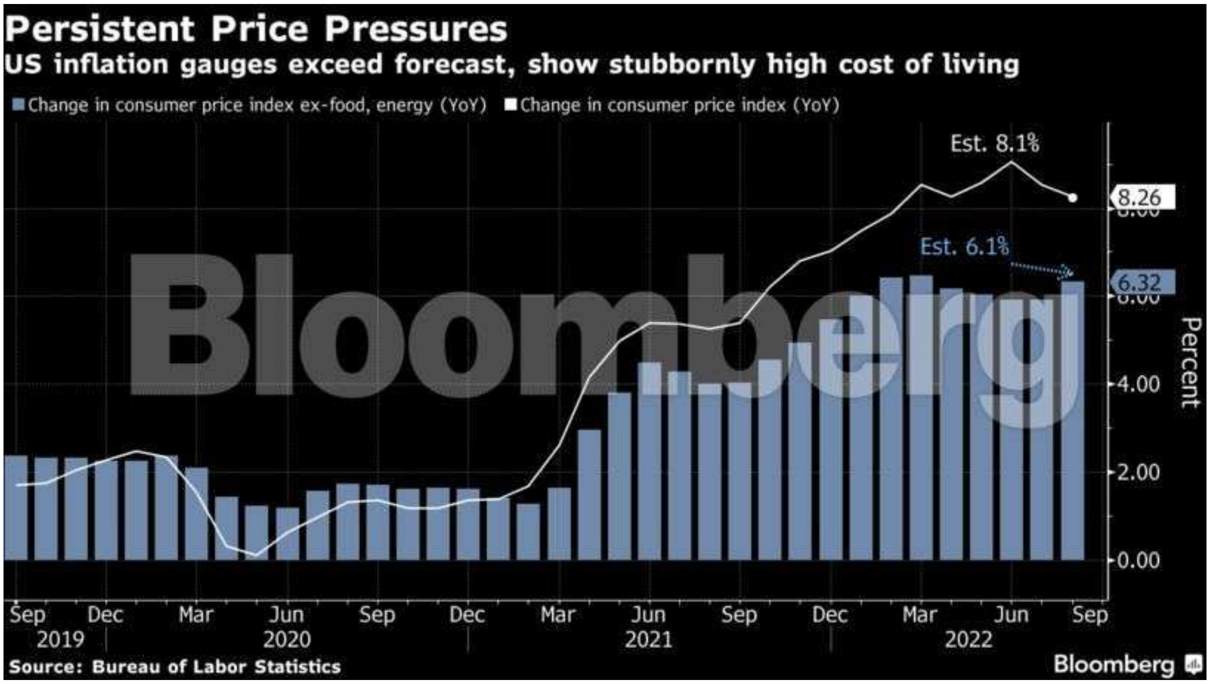
SOURCE- OECD

- Despite the downside risks, there is also upside potential to the global economic growth forecast. Fiscal measures in the EU and China support growth towards the end of the year and lead to the potential continuation of a stable dynamic in 2023.

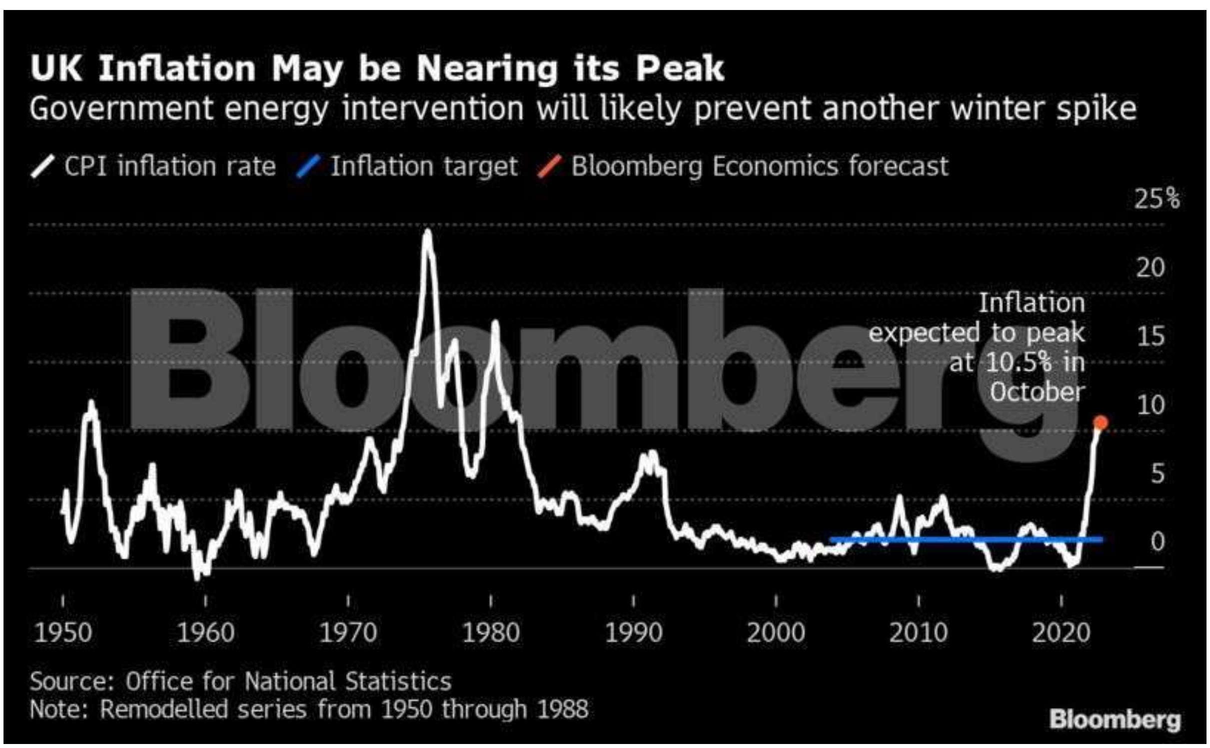
- As a result of the expected robust economic growth, oil demand will continue to rise, especially driven by the recovery in travel and transportation, according to OPEC. The overall growth in oil demand is forecasted at 3.1 million barrels per day (bpd) in 2022 and 2.7 million bpd in 2023, surpassing the pre-COVID-19 levels, to stand at an average 102.7 million bpd next year.

Global Inflation

- Inflation has become broad based in the global economy and continues to rattle the global economy.
- The war in Ukraine has created energy supply disruptions, impacting food and electricity prices, as well as consumer sentiment.
- Energy price shocks have caused rising global inflation and tighter monetary conditions, slowing global growth.
- US consumer prices have been on an upswing during the quarter with Fed raising the interest rates to reduce the inflationary pressures.



- In UK, the Consumer Prices Index rose 9.9% in August from a year ago, compared with 10.1 in July.



- In response to persistently high inflation and an upward drift in long-run inflation expectations, central banks are accelerating monetary policy tightening.

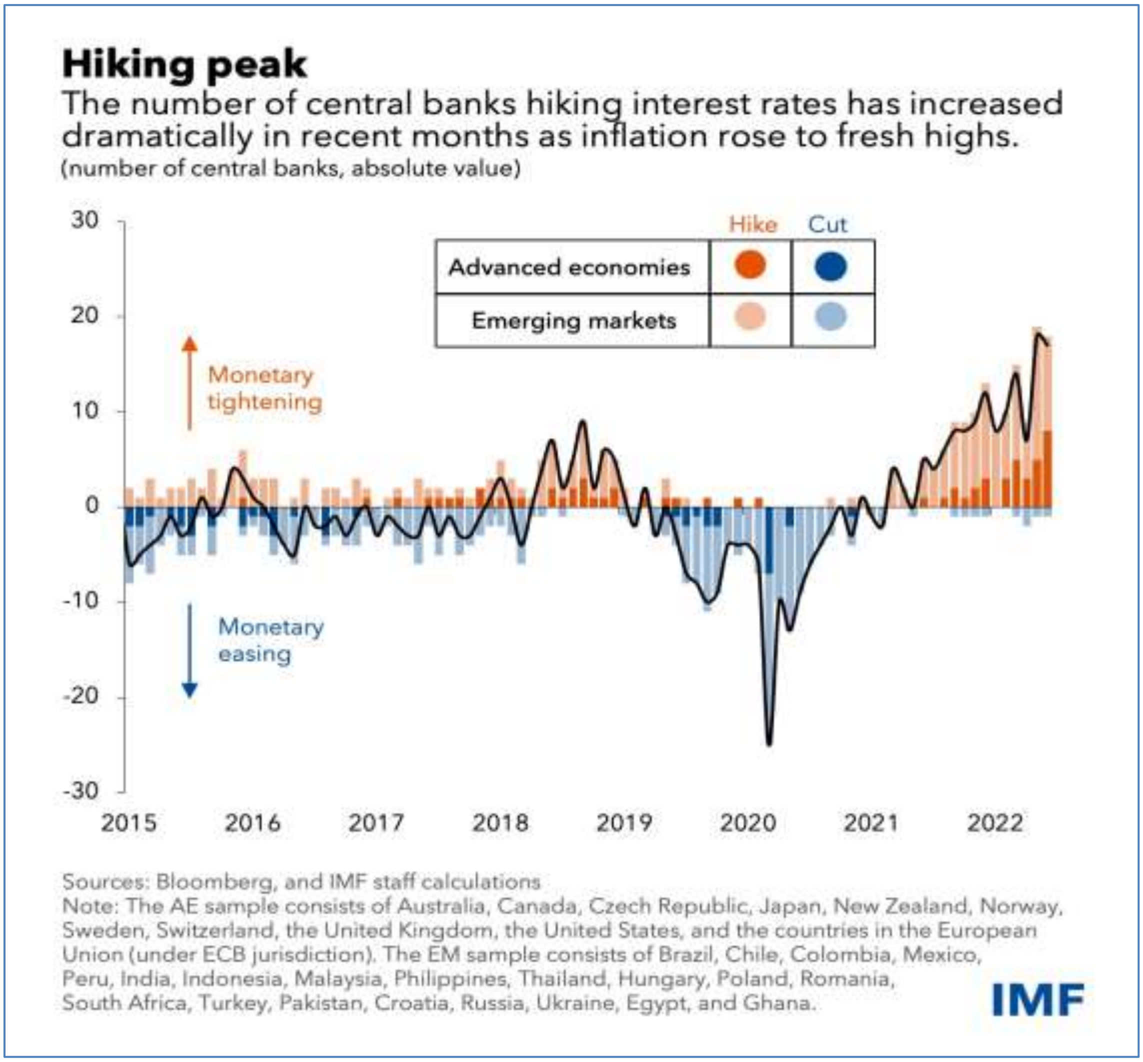
○ The Federal Reserve boosted the fed funds rate by 75 basis points for a second consecutive time to signal its determination to bring inflation back to its 2% target.

○ The Reserve Bank of India has announced 140 bps rate hike this year to curb inflation.

○ The European Central Bank raised interest rates for the first time in 11 years this July by 50 basis points to tackle eurozone inflation, which was followed by a 75-bps hike in September.

○ The Bank of England raised interest rates by half a percentage point in early August 2022 and has hiked interest rates 5 times this year.

○ Following the Russian Ukraine crisis, the Russian Central Bank more than doubled interest rate by 1050 bps to 20%, but weak consumer demand forces rates to be cut to 7.5%.



Multilateral international agencies forecast a downward trend in global growth for 2022.

➢ **Moody's slashes G-20 nations' GDP growth to 2.5% from 3.1% in 2022**

• Global credit rating agency Moody's Investors Service has reduced the 2022 real gross domestic product (GDP) growth forecast for G-20 countries to 2.5 per cent in 2022 from 3.1 per cent made in May.

- Moody's also cut the GDP growth forecast for the G-20 nations to 2.1 per cent from 2.9 per cent for the year 2023.
- For G-20 advanced economies, Moody's forecasts 2.1 per cent growth in 2022, and 1.1 per cent in 2023.
- For G-20 emerging market countries, Moody's projects 3.3 per cent growth in 2022 and 3.8 per cent in 2023.
- According to Moody's, global trade in durable goods and commodity prices are set to soften. A pullback in goods demand is underway. Supply-chain problems are easing and global auto production is picking up, it said.
- Producer price inflation, which is a broad measure of supply-side inflation, appears to have peaked in several countries.
- Further, inflation expectations remain anchored over the medium term. Labor markets remain tight in advanced economies, said Moody's.

➢ **Global GDP growth to slow to 2.8% in 2022, 2% in 2023, says S&P Global Market Intelligence**

- S&P Global Market Intelligence has projected global real gross domestic product (GDP) growth to slow from 5.8% in 2021 to 2.8% in 2022, and 2% in 2023.
- the firm said the 2023 growth rate is revised down 0.3 percentage point from last month's forecast, reflecting weaker outlooks for the world's largest economies — the eurozone, mainland China, Japan, and the US.
- It said the period of weakest growth and highest vulnerability will be in late 2022 and early 2023, when a new major shock could tip the world economy into a recession.
- S&P Global said massive fiscal and monetary stimulus during the Covid-19 pandemic have sent US inflation to a four-decade high. It said despite a slight easing since June, consumer price inflation remained high at 8.3% year-on-year in August.
- According to S&P Global, US Federal Reserve is now determined to bring inflation back to its 2% target, and will likely raise the federal funds rate to 4% or higher by the end of 2022.

➢ **Fitch cuts world GDP growth at 2.4%**

- Fitch expects world GDP to grow by 2.4 per cent in 2022 – revised down by 0.5 percentage points (ppt) since the June assessment – and by just 1.7 per cent in 2023, a cut of 1 ppt.

- According to Fitch, the eurozone and the United Kingdom are expected to enter recession later this year and Fitch forecasts that the US will suffer a mild recession in mid-2023.

Global Forecast Summary			
Economy	GDP Growth (%)		
	2022F	2023F	2024F
US	1.7	0.5	1.7
Eurozone	2.9	-0.1	2.3
China	2.8	4.5	4.7
Japan	1.7	1.3	1.1
UK	3.4	-0.2	1.9
Developed	2.1	0.6	1.8
Emerging	2.9	3.6	4.2
Emerging ex-China	3.1	2.5	3.5
World	2.4	1.7	2.8
All Forecasts (F) are calendar year; Source: Fitch Ratings report			

- The biggest forecast cuts, according to the report, have been to the eurozone in response to the natural gas crisis. US growth has also been revised down to 1.7 per cent in 2022 and 0.5 per cent in 2023, revisions of 1.2% and 1.0% respectively.

- According to Fitch, the European gas crisis, high inflation and a sharp acceleration in the pace of global monetary policy tightening are taking a heavy toll on economic prospects.

➢ **Developing Asia GDP growth forecast cut to 4.3% amid higher inflation – ADB**

- The Asian Development Bank (ADB) revised its economic growth forecast for developing Asian economies to 4.3% this year from a previous projection of a 5.2% expansion amid the continued rise in inflation in the region.
- For 2023, the region's economic growth forecast was cut to 4.9% from a previous estimate of a 5.3% increase, the ADB said in its *Asian Development Outlook 2022 Update* report.
- "Several downside risks loom large. A sharp deceleration in global growth, stronger-than-expected monetary policy tightening in advanced economies, the war in Ukraine escalating, a deeper-than-expected deceleration in China, and negative pandemic developments could all dent developing Asia's growth over the forecast horizon," it said.

GDP growth rate, % per year

	2021	2022 April ADO 2022	2022 September Update	2023 April ADO 2022	2023 September Update
Developing Asia	**7.0**	**5.2**	**4.3**	**5.3**	**4.9**
Developing Asia excluding the PRC	**5.9**	**5.5**	**5.3**	**5.8**	**5.3**
Caucasus and Central Asia	**5.7**	**3.6**	**3.9**	**4.0**	**4.2**
Armenia	5.7	2.8	7.0	3.8	4.5
Azerbaijan	5.6	3.7	4.2	2.8	2.8
Georgia	10.4	3.5	7.0	5.0	6.0
Kazakhstan	4.3	3.2	3.0	3.9	3.7
Kyrgyz Republic	3.6	2.0	3.0	2.5	3.5
Tajikistan	9.2	2.0	4.0	3.0	5.0
Turkmenistan	5.0	6.0	5.8	5.8	5.8
Uzbekistan	7.4	4.0	4.0	4.5	5.0
East Asia	**7.7**	**4.7**	**3.2**	**4.5**	**4.2**
Hong Kong, China	6.3	2.0	0.2	3.7	3.7
Mongolia	1.4	2.3	1.7	5.6	4.9
People's Republic of China	8.1	5.0	3.3	4.8	4.5
Republic of Korea	4.1	3.0	2.6	2.6	2.3
Taipei,China	6.6	3.8	3.4	3.0	3.0
South Asia	**8.1**	**7.0**	**6.5**	**7.4**	**6.5**
Afghanistan	...	...	...	...	...
Bangladesh	6.9	6.9	7.2	7.1	6.6
Bhutan	4.1	4.5	4.5	7.5	4.0
India	8.7	7.5	7.0	8.0	7.2
Maldives	37.1	11.0	8.2	12.0	10.4
Nepal	4.2	3.9	5.8	5.0	4.7
Pakistan	5.7	4.0	6.0	4.5	3.5
Sri Lanka	3.3	2.4	-8.8	2.5	-3.3
Southeast Asia	**3.3**	**4.9**	**5.1**	**5.2**	**5.0**
Brunei Darussalam	-1.6	4.2	2.2	3.6	3.6
Cambodia	3.0	5.3	5.3	6.5	6.2
Indonesia	3.7	5.0	5.4	5.2	5.0
Lao People's Democratic Republic	2.3	3.4	2.5	3.7	3.5
Malaysia	3.1	6.0	6.0	5.4	4.7
Myanmar	-5.9	-0.3	2.0	2.6	2.6
Philippines	5.7	6.0	6.5	6.3	6.3
Singapore	7.6	4.3	3.7	3.2	3.0
Thailand	1.5	3.0	2.9	4.5	4.2

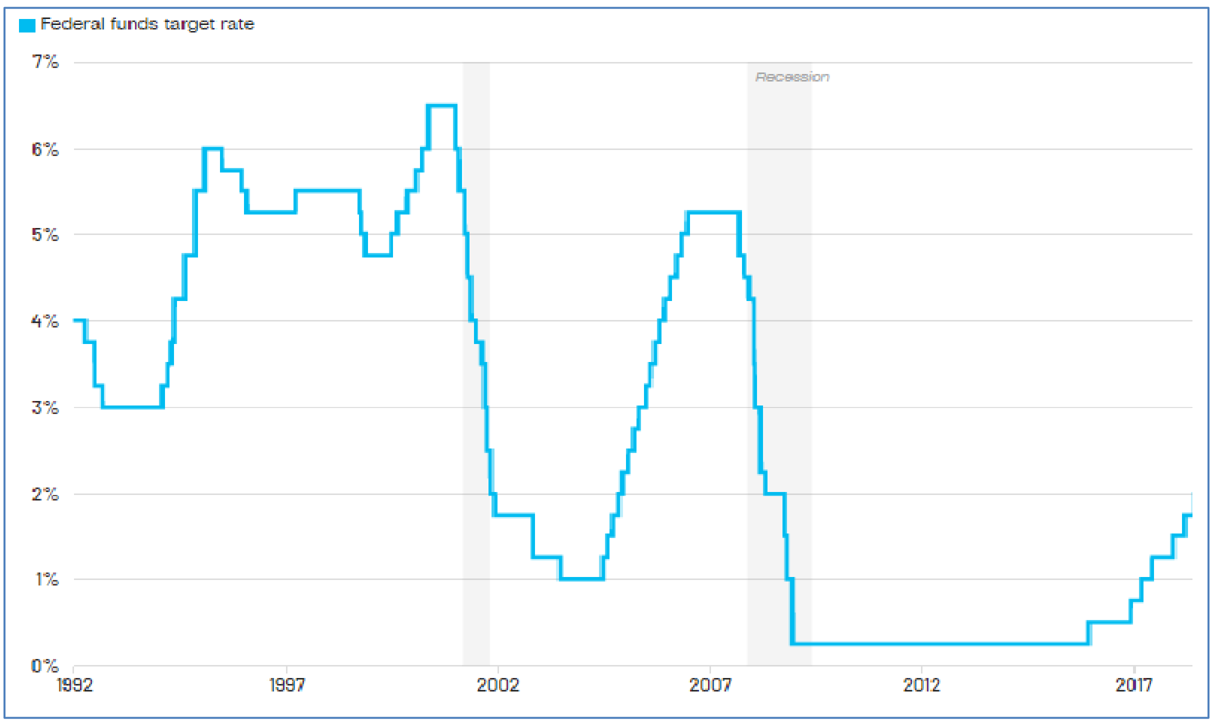
Source: Asian Development Bank

- Excluding China, the rest of developing Asia is projected to grow by 5.3% in both 2022 and 2023 – the first time in more than three decades that the rest of developing Asia will grow faster than China.
- China's economic growth forecast was cut to 3.3% for 2022 from the previous forecast of a 5.0% expansion.
- The ADB's regional inflation forecast is raised to 4.5% from 3.7% for 2022 and to 4.0% from 3.1% for 2023.
- "Although global food prices have abated recently, the continuing war in Ukraine is keeping the costs of imported energy elevated in the region," the ADB said.

- While developing Asia's exports remained strong in the first half of the year, they are slowing rapidly and a sharp deceleration in global growth would severely undermine demand.

➢ **Fed raises interest rate by 0.75 percentage points as US seeks to rein in inflation**

- The Federal Reserve announced another sharp hike in interest rates as the central bank struggles to rein in runaway inflation. The Fed raised its benchmark interest rate by 0.75 percentage points, the third such outsized rate increase in a row and fifth time this year, bringing the Fed rate to 3%-3.25% and increasing the cost of everything from credit card debt and mortgages to company financing.
- The central bank signaled more raises to come, predicting rates would reach 4.4% by the end of the year and not start coming down until 2024. The Fed expects the rate rises to hit housing prices and the job market – raising unemployment from 3.7% to 4.4% next year – and to decrease economic growth.
- The housing market is struggling in the face of higher mortgages rates, which recently jumped above 6% for the first time since 2008. Home sales fell to their lowest level since 2008, and prices started to decline, as buyers have struggled to afford homes amid higher borrowing costs and low supplies.



Source- Federal Reserve

The September FOMC meeting was accompanied by the latest Summary of Economic Projections (SEP), which gives important economic indicators prevalent in US economy over the short and medium term.

The latest SEP estimates that:

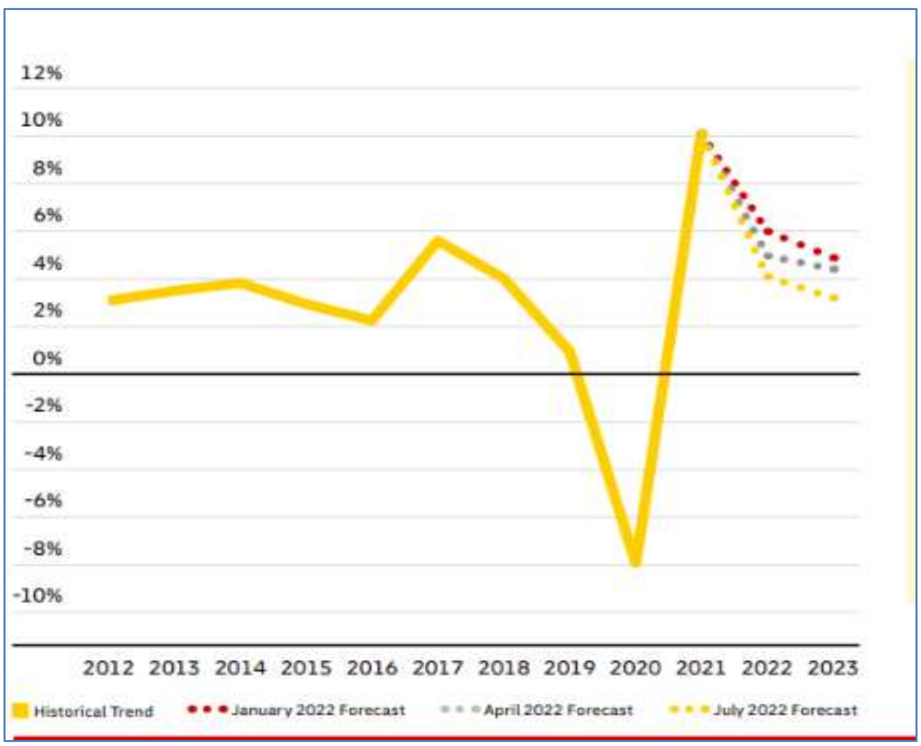
- GDP should grow by 0.2% in 2022, a marked decrease from the June projection of 1.7%.
- Unemployment rate may hit 3.8% in 2022, which is only 0.1 percentage point higher than the June projection.
- PCE inflation to grow by 5.4% in 2022, up from the June projection of 5.2%.
- Core PCE inflation to grow by 4.5% in 2022, higher than the June projection of 4.3%.
- The federal funds target rate will rise to 4.4% in 2022, which is a full percentage point higher than the June projection.

The outlook for global trade- World Economic Forum

- In 2022 and 2023, international trade will slow, due to the war in Ukraine. But it is predicted the war will have a much smaller impact globally on trade than the pandemic - slowing but not reversing growth, so it still grows faster in those two years than the entire previous decade.

- By 2027, DHL Trade Growth Atlas 2022 projects trade to sustain or even expand its role in the global economy, growing slightly faster than GDP year on year.

- The below chart tracks the IMF's changing forecasts on the growth of global trade in both goods and services, with the yellow dotted line showing the latest, July, forecast.



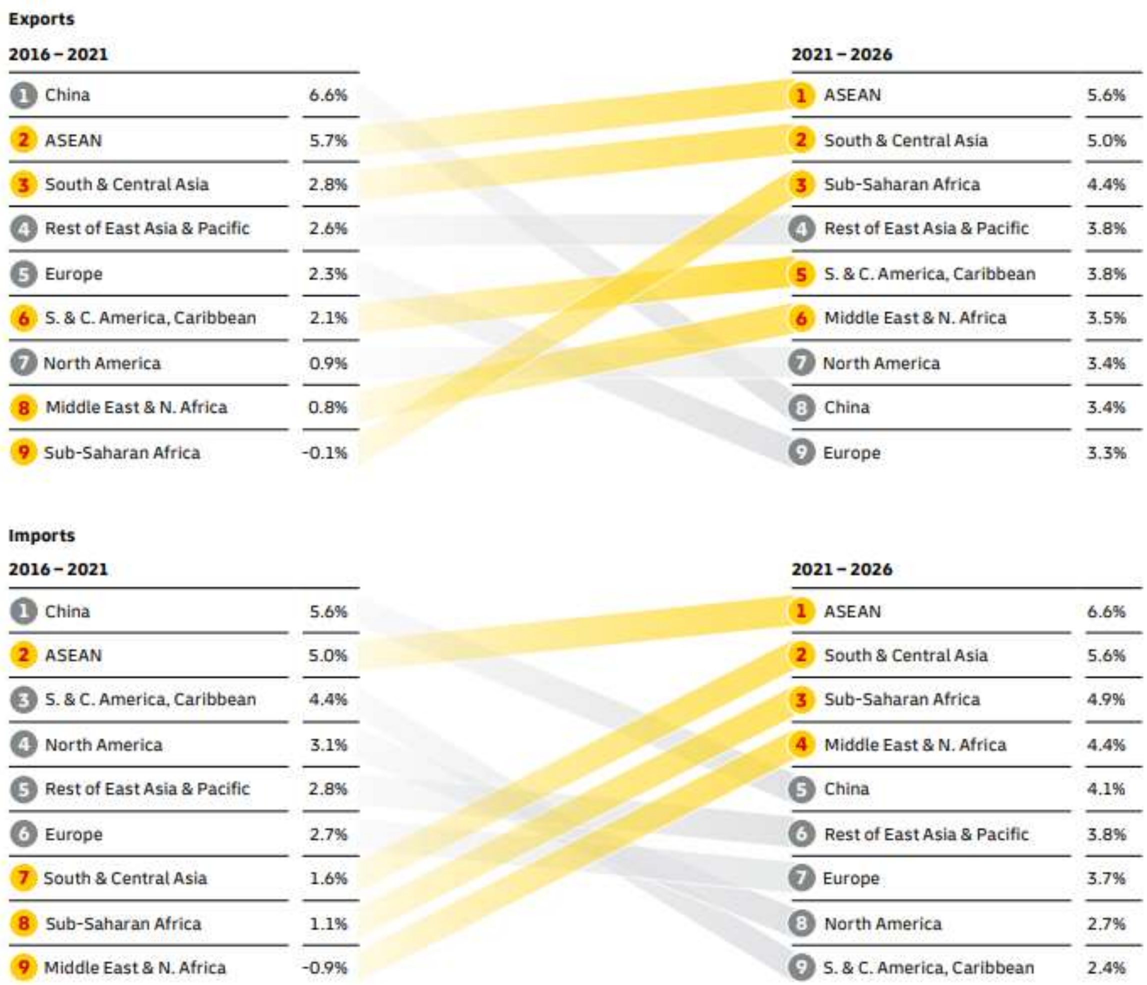
SOURCE-IMF

How the trade map is being redrawn

- The center of gravity of world trade is poised for a turn to the south, says the report, which finds Southeast and South Asia, as well as Sub-Saharan Africa will all be central to trade growth in future.

- The below chart, which again draws on IMF forecasts, shows these three regions will have the fastest growing global trade growth by volume in the next five years.
- By contrast, the rate of China's trade growth will slow, and its share of global growth will fall, as trade growth spreads across more countries.
- By 2026, emerging economies will account for 45% of trade growth, with 55% in advanced economies.
- Southeast and South Asia, as well as Sub-Saharan Africa will have the fastest growing trade growth by volume in the next five years.
- The report concludes that global trade can be a powerful force against inflation and supply chain disruptions: With inflation at multi-decade highs and economies slowing down, trade's power to accelerate growth, lower prices and diversify sources of key inputs is even more crucial for companies and countries than it was before the present wave of crises.

FIGURE 2.8: TRADE VOLUME GROWTH RATE BY REGION, NEXT FIVE YEARS (IMF FORECAST) VS. LAST FIVE YEARS



The Association of Southeast Asian Nations (ASEAN) is forecast to lead the world in terms of both export and import growth over the next five years, followed by the South & Central Asia and Sub-Saharan Africa regions. China, if treated as its own region, is forecast to fall to 8th place for exports and 5th place for imports.

Data Source: IMF World Economic Outlook April 2022

Fossil fuel reserves contain 3.5 tn tonnes of CO_2: database: Global Registry of Fossil Fuels

Burning the world's remaining fossil fuel reserves would unleash 3.5 trillion tonnes of greenhouse gas emissions—seven times the remaining carbon budget to cap global heating at 1.5C—according to the first public inventory of hydrocarbons.

The United Nations estimates that Earth's remaining carbon budget—how much more pollution we can add to the atmosphere before the 1.5C temperature goal of the Paris Agreement is missed—to be around 360 billion tonnes of CO_2 equivalent, or nine years at current emission levels.

The UN's annual Production Gap assessment last year found that governments plan to burn more than twice the fossil fuels by 2030 that would be consistent with a 1.5C world. But until now there has been no comprehensive global inventory of countries' remaining reserves.

The Global Registry of Fossil Fuels seeks to provide greater clarity on oil, gas and coal reserves to fill knowledge gaps about global supply and to help policymakers better manage their phaseouts.

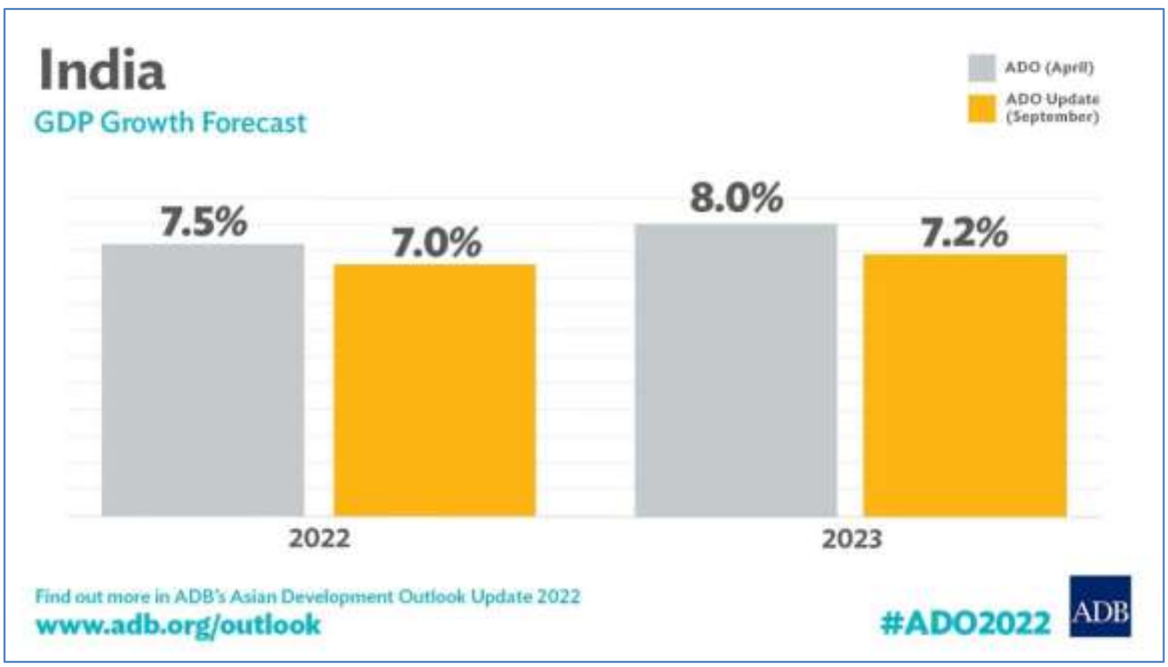
Containing more than 50,000 fields across 89 countries, it found that some countries on their own held reserves containing enough carbon to blow through the entire world's carbon budget.

For example, US coal reserves embed 520 billion tonnes of CO2 equivalent. China, Russia and Australia all hold enough reserves to miss 1.5C, it found. Thus, the remaining fossil fuel reserves contain seven times the emissions of the carbon budget for 1.5C.

India

India GDP growth

According to Asia Development Bank, India's growth has been forecasted at 7.00% for 2022 in an update of its flagship economic publication, *Asian Development Outlook (ADO) 2022*. The growth outlook for 2023 is also revised down to 7.2% from 8.0%.



- ADB said in its report that even though the India's gross domestic product (GDP) is steadily closing in on its pre-pandemic trend level, the growth is plagued down by factors such as higher inflationary pressures due to rising global energy and food prices, monetary policy normalization and deterioration in global market conditions.

- According to ADB, inflation is forecasted to remain elevated over the next 2 years, averaging 6.7% in FY2022 before moderating to 5.8% in FY2023.

- The services sector is expected to remain buoyant due to the lifting of COVID-19 restrictions. However, the manufacturing sector is expected to grow slower because of rising input costs.

- Investment growth is likely to be led by public rather than private investment, with the government's capital expenditure budgeted at a record 2.9% of GDP.

- India's current account deficit may widen to 3.8% of GDP in FY2022 due to rising imports and a slowdown in exports. The deficit is expected to narrow to 2.1% of GDP in FY2023 as oil and other import prices moderate.

RBI's Monetary Policy, September 2022

- The Reserve Bank of India (RBI) on September 30th, 2022 announced a 50 basis points hike in the repo rate stepping up its fight against persistently high inflation. The repo rate now stands at 5.9%.
- This is the fourth consecutive rate hike after a 40 basis points increase in May and 50 basis points hike each in June and August. In all, RBI has raised benchmark rate by 1.90 per cent since May this year.
- Reserve Bank of India leaves inflation projection for FY23 unchanged at 6.7% on upside risks to food and energy prices.
- The real GDP for FY23 has been revised at 7% from earlier forecast of 7.2 per cent for FY'23.

Inflation in India

- India's retail inflation rate rose to 7.0% in August from 6.71% in the previous month primarily because of higher food and energy prices.

- The National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI) on 12th September, 2022 has released All India Consumer Price Index (CPI) and corresponding Consumer Food Price Index (CFPI) for Rural, Urban and Combined for the month of August 2022 (Provisional).

All India Inflation rates (%) based on CPI (General) and CFPI

Indices	Aug. 2022 (Prov.)			Jul. 2022 (Final)			Aug. 2021		
	Rural	Urban	Combd.	Rural	Urban	Combd.	Rural	Urban	Combd.
CPI (General)	7.15	6.72	7.00	6.80	6.49	6.71	5.28	5.32	5.30
CFPI	7.60	7.55	7.62	6.73	6.69	6.69	3.08	3.28	3.11

Source- NSO, MoSPI

- The aggregate domestic demand is expected to show a surge with the upcoming festive season, thus leading to putting higher pressure on prices.

- Further, the rise in crude prices because of the Russia-Ukraine conflict and reluctance of the Organization of the Petroleum Exporting Countries (OPEC) to increase output is also putting pressure on energy prices.

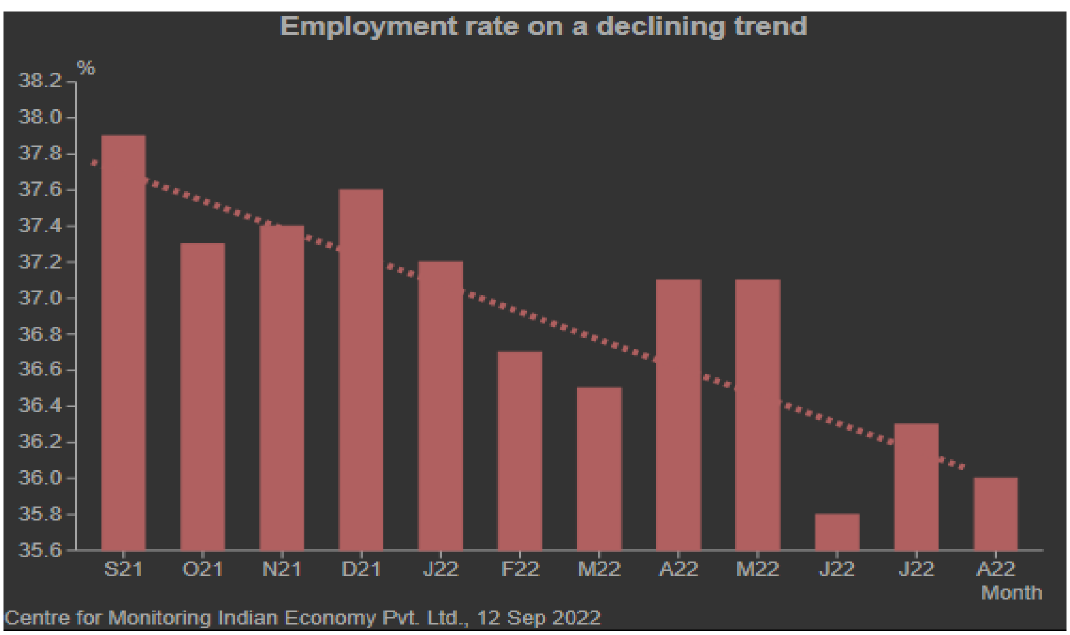
Unemployment in India

- The joblessness rate in India has hit a one-year high of 8.3% in August, according to data from the Centre for Monitoring Indian Economy (CMIE).

- While both rural and urban unemployment increased significantly, the overall rise is driven by joblessness in urban areas.

- The urban unemployment touched 9.57% in August as against 8.21% the previous month. At the same time, rural unemployment surged to 7.68% from 6.14% in July.

- The highest unemployment rate during August, in terms of states, was witnessed in Haryana at 37.3% followed by Jammu and Kashmir at 32.8%, Rajasthan at 31.4%, Jharkhand at 17.3% and Tripura at 16.3%.



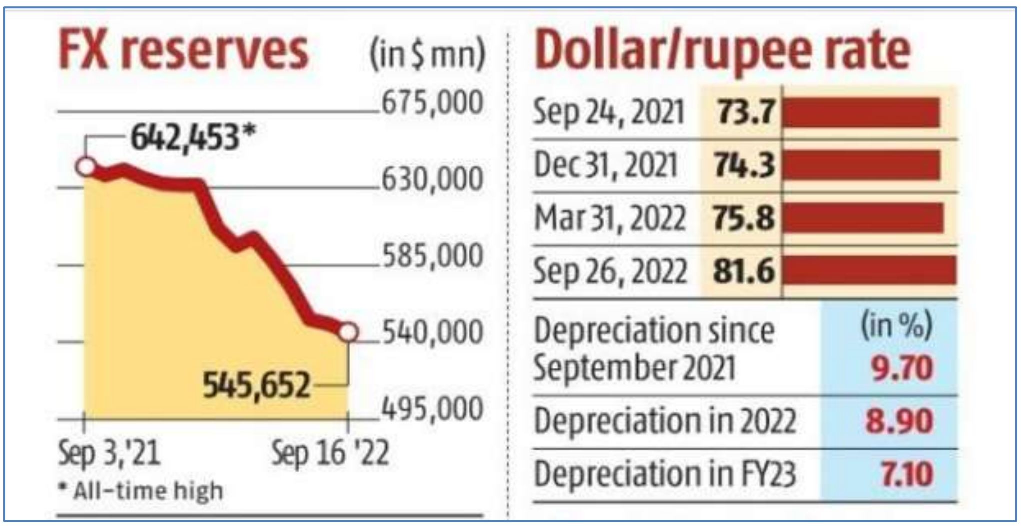
- As per the CMIE data, the lowest unemployment rate was seen in Chhattisgarh at 0.4% followed by Meghalaya at 2%, Maharashtra at 2.2% and Gujarat and Odisha at 2.6%.

India's external sector

- The rupee has depreciated 9.7 per cent against the US dollar over a year and with the RBI stemming the rupee's weakness through dollar sales, its reserves have dropped to their lowest levels since October, 2020.

- **Forex Reserves:** The headline foreign exchange reserves have decline to $545.65 billion as on September 16, 2022 primarily owing to revaluation in the face of a stronger dollar.

- **Rupee Depreciation:** The rupee has depreciated 9.7 per cent against the dollar since September 2021. Year-to-date, it has depreciated 8.9 per cent.



Source- RBI

- **Import Cover:** The import cover provided by the RBI's foreign exchange reserves have reduce to 9 months (imports projected for the financial year) as on September 2, 2022. The import cover was at close to 15 months when the FX reserves were at their all-time high of $642.45 billion on September 3, 2021

Import cover

Date	Level ($ bn)	Import cover*
September 3, 2021	642.5#	Close to 15 months
November 5, 2021	640.9	14 months
January 7, 2022	632.7	13 months
March 4, 2022	631.9	12.4 months
May 6, 2022	596.0	10 months
July 8, 2022	580.3	9.5 months
September 2, 2022	553.1	9 months

All-time high *projected for FY Source: RBI

India on track to attract USD 100 billion FDI in 2022-23: Centre

- India is on track to attract USD 100 billion foreign direct investment (FDI) in the current fiscal on account of economic reforms and ease of doing business, as per the Ministry of Commerce & Industry.
- FDI inflows in India stood at USD 45.1 billion in 2014-15 and have since consecutively reached record FDI inflows for eight years.
- In 2021-22, the country received the highest ever foreign inflows of USD 83.6 billion.
- This FDI has come from 101 countries, and invested across 31 UTs and States and 57 sectors in the country.
- On the back of economic reforms and Ease of Doing Business in recent years, India is on track to attract US$ 100 Bn FDI in the current FY 2022-23.

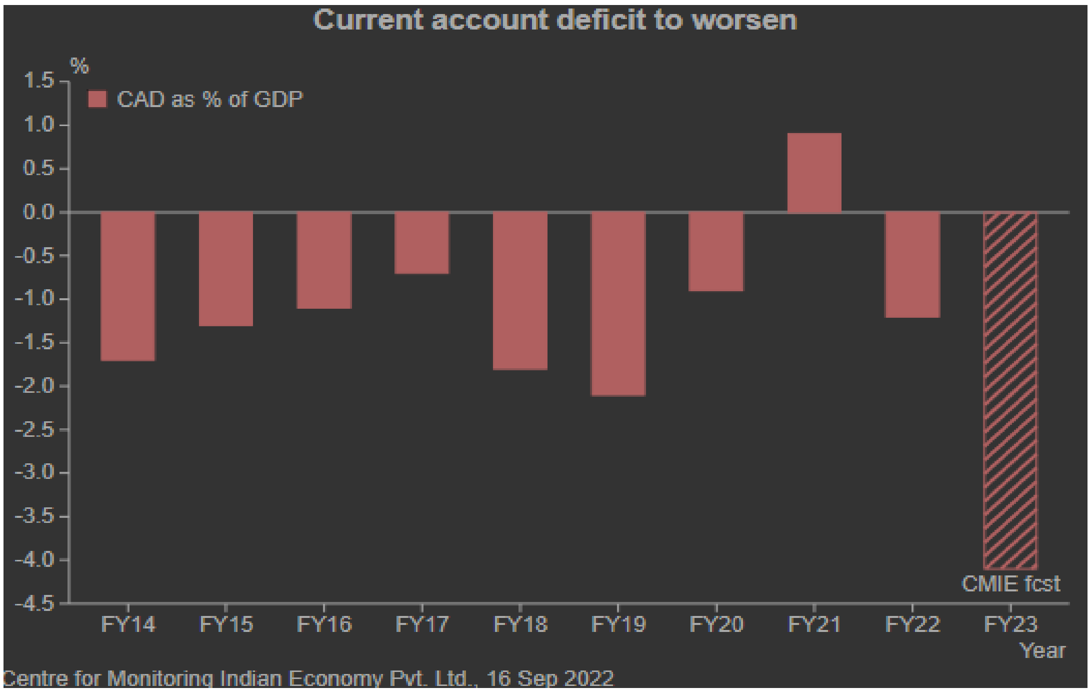
India's Current Account Deficit (CAD) to touch 5.6% of GDP in Q2 FY23- CMIE

- India's current account deficit (CAD) is set to climb to 5.6 per cent of GDP in the quarter ending September 2022. This would be the highest CAD-to-GDP ratio in a decade. CAD as a proportion of GDP was last seen higher than this in the quarter ended December 2012.

- In absolute terms, the country is expected to record a CAD of USD 56.3 billion during July-September 2022. The widening of CAD is solely led by an expansion in merchandise trade deficit.

- Indian economy has been witnessing a rapid widening of merchandise trade deficit for the past one year. On customs basis, merchandise trade deficit expanded from USD 31.5 billion in the June 2021 quarter to 44.7 billion in the September 2021 quarter and further up to USD 60.1 billion in the December 2021 quarter. The deficit showed a seasonal narrowing in the March 2022 quarter, alleviating to USD 54.4 billion. But it widened once again in the June 2022 quarter to touch a fresh high of USD 68.7 billion.

- Within the first two months of the September 2022 quarter, merchandise trade deficit has swelled to USD 55.8 billion and is expected to aggregate at USD 83 billion in the September 2022 quarter.



- India's imports increased exponentially between the April-June quarter of last year and this year from USD 127.1 billion to USD 189.9 billion. The rise was primarily driven by sharp increase in commodity prices globally, particularly energy. IMF's energy price index, comprising prices of crude oil, natural gas and coal, doubled from 156.2 in the June 2021 quarter to 311.8 in the June 2022 quarter. Besides, imports of most commodities witnessed volume growth too as domestic demand recovered with waning impact of the Covid-19 pandemic. Imports remained elevated at USD 128.2 during July-August 2022.

- India's merchandise exports grew between the June 2021 quarter and the June 2022 quarter from USD 95.6 billion to 121.1 billion. But these could not keep pace with the rapid increase in imports. Consequently, trade deficit widened. Exports moderated in the last two months to USD 38.4 billion in July 2022 and USD 33.9 billion in August 2022 due to global slowdown and imposition of exports duties on shipments of petroleum fuels and steel. Demand for exports of textile, readymade garments, gems & jewelry and a few other commodities weakened from the western countries.

Multilateral international agencies revised the growth trend in case of India for 2022.

- **ADB cuts India's GDP growth forecast for FY23 to 7% on high inflation, monetary tightening**

The Asian Development Bank (ADB) has cut its GDP growth forecast for India by 50 basis points to 7 percent for the current financial year ending in March 2023.

The ADB said that elevated commodity prices, including those of oil, and domestic inflation will force Indian monetary policy to continue to tighten. Weaker than expected global demand over the next 2 years will also adversely affect exports and growth, despite the structural reforms being undertaken by the government. According to ADB, the economy is expected to grow strongly over the forecast horizon, with investment playing a catalytic role.

For the next financial year ending in March 2024, the ADB has cut its GDP growth forecast for India by an even larger 80 basis points to 7.2 percent. The ADB's revised forecast for FY23 is now slightly lower than the Reserve Bank of India's (RBI) estimate of 7.2 percent.

Further, ADB said it expects Indian inflation to ease in FY24 to 5.8 percent, which would be only 20 basis points lower than the 6 percent upper bound of the RBI's mandate tolerance range. According to ADB, even though supply pressures are expected to ease in FY24, upward pressure on inflation could continue because of demand-side pressures caused by increasing economic activity.

The downward revision in India's growth forecast was one of the primary reasons behind the ADB lowering its expectations for South Asian growth, which is now seen at 6.5 percent in 2022, down from 7 percent previously.

- **India GDP Growth Forecast for 2022 Slashed to 7.7% from 8.8% by Moody's**

Moody's Investors Service slashed India's GDP growth by a whopping 1.1 percentage points citing dampening of economic momentum in coming quarters on rising interest rates, uneven monsoon, and slowing global growth. The sharp cut has now lowered India's GDP forecast to 7.7 per cent, as compared to the earlier forecast of 8.8 per cent in May.

In its update to Global Macro Outlook 2022-23, Moody's said India's central bank is likely to remain hawkish this year and maintain a reasonably tight policy stance in 2023 to prevent domestic inflationary pressures from building further.

- **OECD retains India GDP growth projection at 6.9% for FY-2023**

Economic grouping OECD in a report retained the GDP growth projections for India at 6.9 per cent for the current financial year despite the global economy losing momentum in wake of the Russia-Ukraine war.

The projection by the Organization for Economic Cooperation and Development (OECD) is lower than the Reserve Bank's growth forecast of 7.2 for 2022-23. The growth last year (2021-22) was 8.7 per cent.

Softer external demand is a factor in India's projected slowdown from 8.7 per cent annual growth in FY2021-22 to around 7 per cent in FY 2022-23 and around 5¾ per cent in FY 2023-24, but this still represents rapid growth in the context of a weak global economy, according to the OECD's latest Interim Economic Outlook. The global economy has lost momentum with Russia-Ukraine crisis, which is dragging down growth and putting additional upward pressure on inflation worldwide, according to the OECD's latest Interim Economic Outlook. The outlook projects global growth at a modest 3 per cent this year before slowing further to just 2.2 per cent in 2023.

➢ **Fitch cuts India FY23 GDP growth forecast to 7%**

Global rating agency Fitch has lowered India's economic growth forecast for fiscal 2022-23 (FY23) as measured by gross domestic product (GDP) to 7 per cent from its June 2022 estimate of 7.8 per cent. It now expects the GDP to slow further to 6.7 per cent in FY24 as compared to its earlier forecast of 7.4 per cent.

Fitch expects the economy to slow down given the global economic backdrop, elevated inflation and tighter monetary policy. According to Fitch expectations, the Reserve Bank of India (RBI), will continue raising rates to 5.9 per cent before the year-end.

India - Forecast Summary

	FY22-23F	FY23-24F	FY24-25F
GDP	7	6.7	7.1
CPI inflation (end-cal. year)	6.2	5	5
Policy interest rate (end-cal. year)	5.9	6	5.75
Exchange rate, USDINR (end-cal. year)	79	80	80

F = Forecast; Source: Fitch Ratings report

India Goes Ahead of UK to Become World's 5th Biggest Economy: IMF Report

➢ The IMF in its forecasts shows India overtaking the UK in dollar terms on an annual basis this year, putting the Asian powerhouse behind just the US, China, Japan and Germany. India was ranked 11th among the largest economies, while the UK was 5th a decade ago.

The calculation is based in US dollars, and India extended its lead in the first quarter, according to GDP figures from the International Monetary Fund.

➢ The IMF report further suggested that the UK is likely to have fallen further in terms of economy as UK GDP grew just 1% in cash terms in the second quarter and, after adjusting for inflation, shrank 0.1%.

Lessons from Economics

Government Budget Deficit and the Economy

A budget is an estimation of revenue and expenses over a specified future period of time and is usually compiled and re-evaluated on a periodic basis by governments, businesses and individuals. Aside from earmarking resources, a budget can also aid in setting goals, measuring outcomes, and planning for contingencies. A surplus budget means profits are anticipated, a balanced budget means revenues are expected to equal expenses, and a deficit budget means expenses will exceed revenues. A fiscal deficit is when the Government expenditure is more than the Government revenue for that particular year. In this article the budget deficit and fiscal deficit have been used interchangeably.

Budget Deficit

- A budget deficit occurs when expenses exceed revenue.
- A budget deficit can lead to higher levels of borrowing, higher interest payments, and low reinvestment, which will result in lower revenue during the following year.
- To correct its nation's budget deficit, a government may cut back on certain expenditures or increase revenue-generating activities.

Causes of Budget Deficit

The levels of taxation and spending affect a government's budget deficit. The scenarios that create deficits by reducing revenue and increasing spending include:

- Tax structure that levies under tax rates from high-wage earners and overtax rates from low-wage earners.
- Increased spending on programs like Social Security, Medicare, or military spending.
- Increased government subsidies to targeted industries.
- Tax cuts that decrease revenue but provide corporations with funds to increase employment.
- Low GDP results in lower tax revenue.

Effects of a Budget Deficit

- To increase revenue, tax hikes may occur for high-income earners or large corporations which may affect their ability to invest in new business ventures or hire new employees.
- A budget deficit occurring in nation can result in higher inflation, which is the continuous increase of price levels. In India, a budget deficit can cause RBI to release more money into the economy, which feeds inflation and continued budget deficits can lead to inflationary monetary policies, year after year.

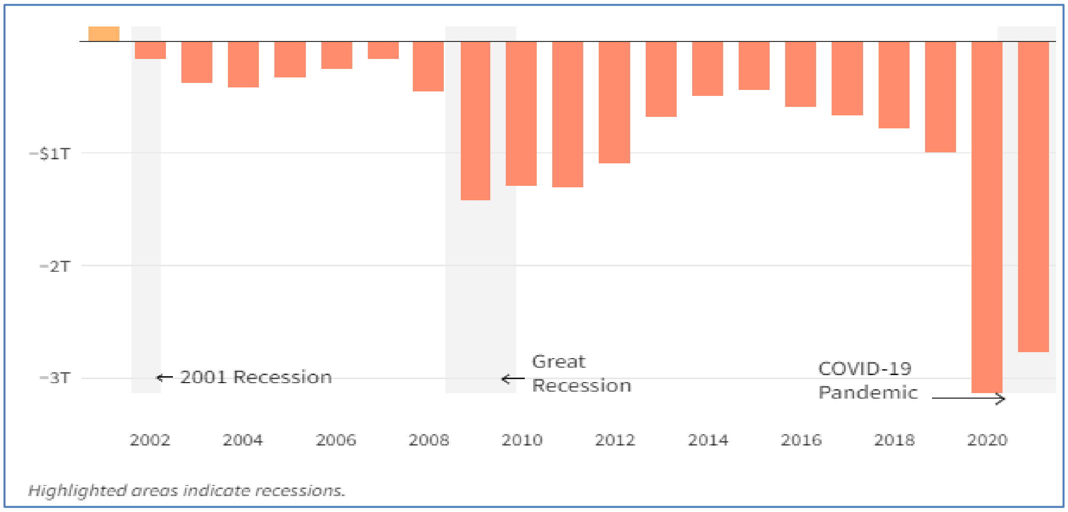
Budget deficit and the US economy

- In the early 20th century, few industrialized countries had large fiscal deficits, however, during the First World War, deficits grew as governments borrowed heavily and depleted financial reserves to finance the war and their growth. These wartime and growth deficits continued until the 1960s and 1970s when world economic growth rates dropped.

- Since 2001, the federal government's budget has run a deficit each year. Starting in 2016, increases in spending on Social Security, health care, and interest on federal debt have outpaced the growth of federal revenue.

- From FY 2019 to FY 2021, federal spending increased by about 50 percent in response to the COVID-19 pandemic.

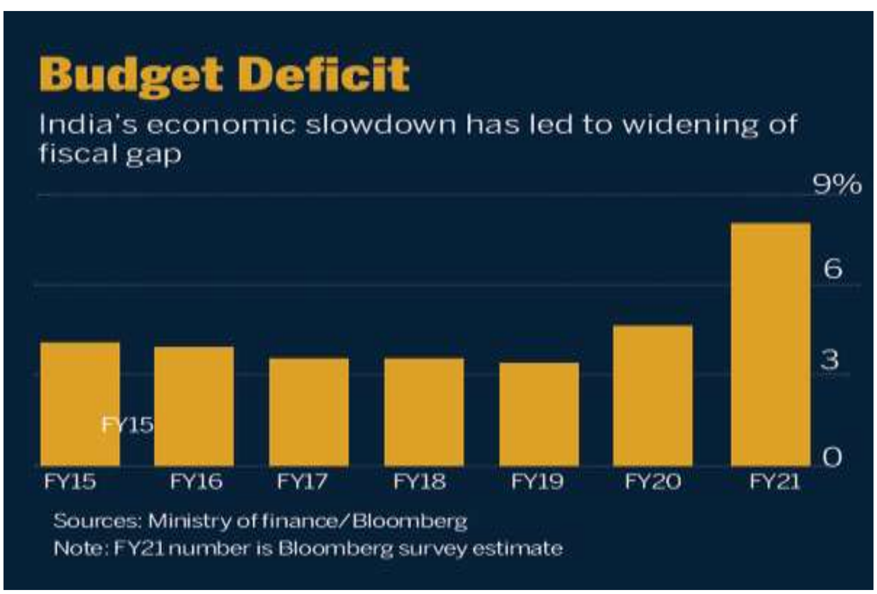
Figure- Federal Deficit trends over time



Source- Investopedia

Budget Deficit and the Indian economy

- The Indian government expanded its expenditure during Covid regime for the welfare of its citizens.
- The expenditure was in terms of food shortages, price and oil subsidies, support boosts to revive various businesses and jobs etc.



- However, India's fiscal deficit for 2021-22 worked out to be 6.71% of its gross domestic product (GDP), lower than the 6.9% deficit projected by the Finance Ministry in its revised Budget Estimates.

- India's fiscal deficit for the three months through June rose to ₹3.52 lakh crore, accounting for 21.2% of the full-year target, according to data released by the Controller General of Accounts.

- In February, while presenting the annual budget, Union Finance Minister Nirmala Sitharaman set the fiscal deficit target at 6.4% of GDP for 2022-23, compared to 6.7% in the previous fiscal year.

****

Oil Market

Crude oil price – Monthly Review

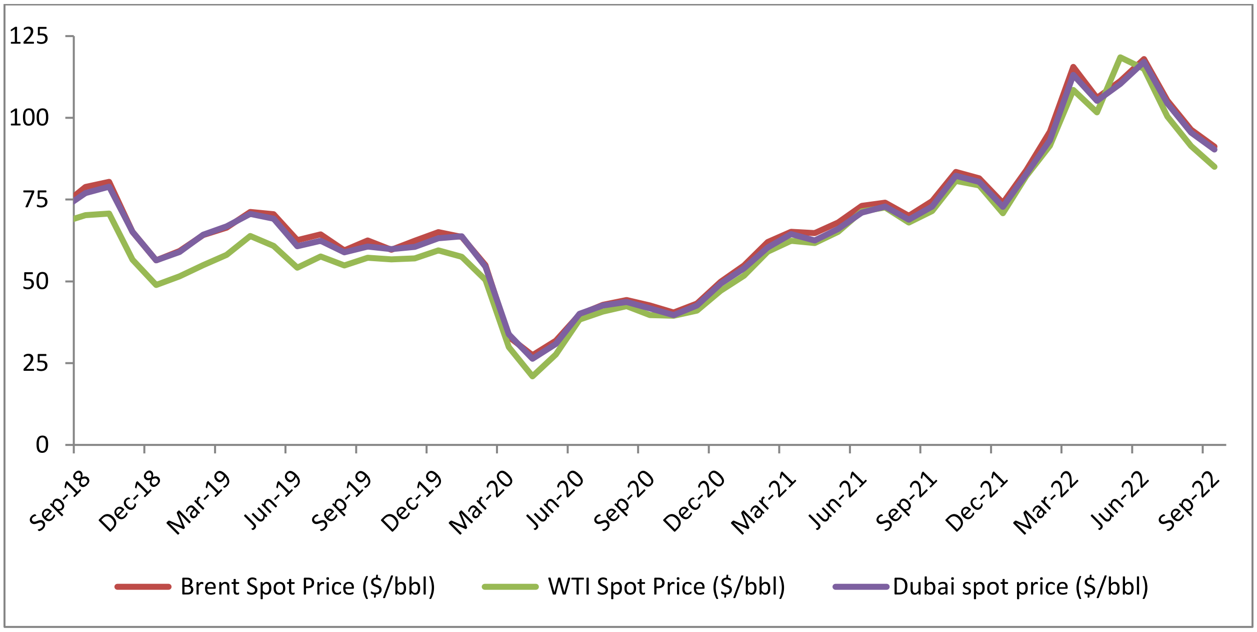
Oil prices touched a nine-month low as the US dollar strengthened and amid concerns of the impact of a potential recession on global demand. The threat of a looming recession is weighing heavily on both oil demand outlook and price. The global economy is expected to slow down this year due to higher inflation, the ongoing Russia-Ukraine War, and Covid-19 pandemic related restrictions in China.

Central banks in numerous oil-consuming countries, including the United States, the world's biggest crude user, have raised interest rates to fight surging inflation which has led to concerns, the tightening could trigger an economic slowdown.

Brent crude ranged an average to $91.20 a barrel and WTI ranged to $85.04 per barrel in the month of September.

Further, as per various economists, it is expected that the price of oil to rise in the long term, especially if the war in the Ukraine continues for a long time. Russia being one of the major suppliers of crude oil and supplies around 10% of the oil consumed in the world. As sanctions tighten, and the Russian oil industry falls into disrepair for lack of Western technology, its production could fall substantially, thereby limiting the supply. A stronger Chinese economy could help in pushing prices higher.

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



Source: World Bank

- Brent crude price averaged $91.20 per bbl in September 2022, down by 5.4% on a month on month (MoM) and up by 22.3% on year on year (YoY) basis, respectively.
- WTI crude price averaged $85.04 per bbl in September 2022, down by 6.9% on a month on month (MoM) and up by 18.8% on year on year (YoY) basis, respectively.
- Dubai crude price averaged $90.34 per bbl in September 2022, down by 5.4% on a month on month (MoM) and up by 24.0% on year on year (YoY) basis, respectively

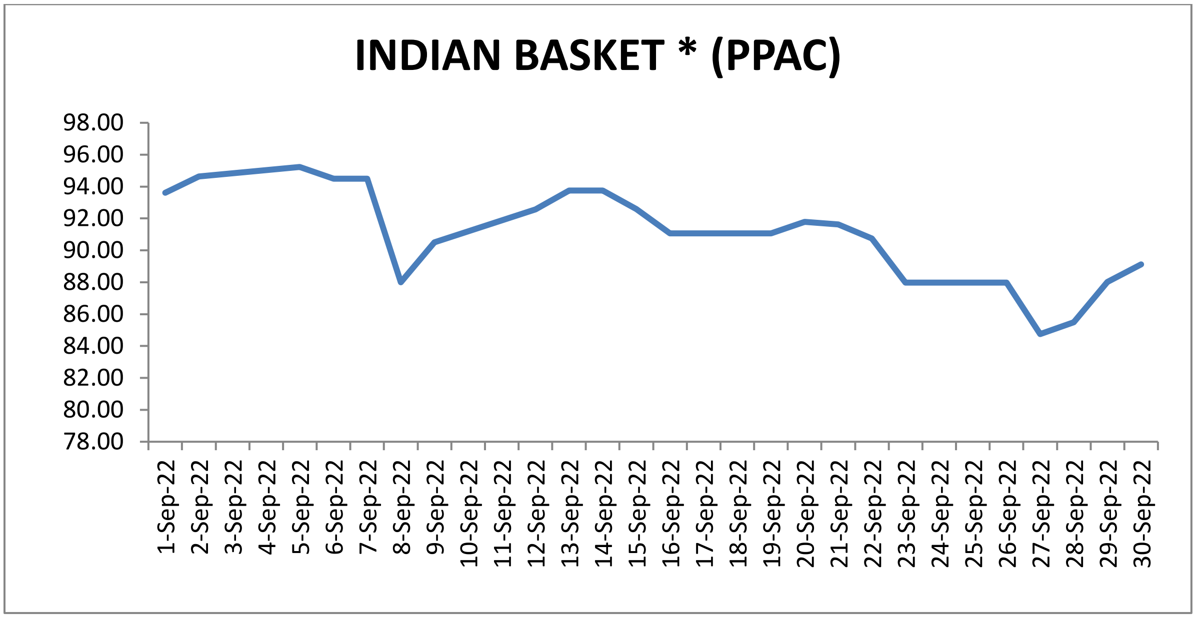
Table 1: Crude oil price in September, 2022

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	91.20	-5.4%	22.3%
WTI	85.04	-6.9%	18.8%
Dubai	90.34	-5.4%	24.0%

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 $90.71 per barrel in September 2022, down by 6.9% on Month on Month (M-o-M) and up by 24.7% on a year on year (Y-o-Y) basis, respectively.

Oil production situation

- According to IEA estimates, World oil production rose 790 kb/d in August to 101.3 mb/d, with a strong recovery in Libya and smaller gains from Saudi Arabia and the UAE offset by losses in Nigeria, Kazakhstan and Russia. From August through December, growth is forecast to slow, edging up by just 280 kb/d to 101.6 mb/d.
- IEA member countries released nearly 180 mb of government stocks from March through August, with a further 52 mb scheduled for the next two months. Moreover, world oil supply increased by 790 kb/d in August to 101.3 mb/d – up more than 5 mb/d on a year ago.

Figure 3: Non-OPEC liquids production in 2022, mb/d

Non-OPEC liquids production	2021	1Q22	2Q22	3Q22	4Q22	2022
Americas	25.25	25.86	26.26	26.90	27.34	26.59
of which US	*17.85*	*18.27*	*18.83*	*19.19*	*19.52*	*18.95*
Europe	3.76	3.73	3.43	3.74	3.99	3.72
Asia Pacific	0.51	0.49	0.51	0.55	0.54	0.52
Total OECD	29.52	30.08	30.20	31.19	31.86	30.84
China	4.31	4.50	4.50	4.42	4.43	4.46
India	0.77	0.77	0.77	0.80	0.82	0.79
Other Asia	2.41	2.37	2.32	2.36	2.39	2.36
Latin America	5.95	6.11	6.15	6.32	6.49	6.27
Middle East	3.24	3.29	3.33	3.40	3.40	3.35
Africa	1.35	1.33	1.32	1.34	1.33	1.33
Russia	10.80	11.33	10.62	10.90	10.70	10.88
Other Eurasia	2.93	3.05	2.77	2.93	3.21	2.99
Other Europe	0.11	0.11	0.11	0.10	0.10	0.11
Total Non-OECD	31.87	32.85	31.89	32.58	32.86	32.54
Total Non-OPEC production	61.39	62.94	62.08	63.77	64.72	63.38
Processing gains	2.29	2.40	2.40	2.40	2.40	2.40
Total Non-OPEC liquids production	63.67	65.33	64.48	66.17	67.12	65.78
Previous estimate	63.65	65.37	64.55	66.26	67.00	65.80
Revision	0.02	-0.03	-0.06	-0.09	0.12	-0.02

Source: OPEC

- From the above table, it can be inferred, that the total non-OPEC liquids production is expected to reach 65.78 mb/d by 2022
- 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
- OPEC-13 crude oil production averaged 29.65 mb/d in August 2022, higher by 618 tb/d m-o-m.

Oil demand situation

- World oil demand is expected to reach 100.03 mb/d in 2022 to 102.73 mb/d in 2023. Jet fuel dominates growth, while road transport demand wanes. Robust oil use for power generation in the Middle East and in Europe due to record natural gas and electricity prices is providing additional support.
- In 2023, Oil demand is expected to be supported by a still-solid economic performance in major consuming countries, as well as potential improvements in COVID-19 restrictions and reduced geopolitical uncertainties.

Table 2: World Oil demand in mbpd	2021	1Q2022	2Q2022	3Q2022	4Q2022	2022	Growth	%
Total OECD	**44.74**	**45.79**	**45.38**	**46.59**	**47.70**	**46.37**	**1.63**	**3.64**
~ of which US	*19.93*	*20.38*	*20.31*	*20.54*	*20.91*	*20.53*	*0.61*	*3.05*
Total Non-OECD	**52.18**	**53.58**	**53.25**	**53.07**	**54.73**	**53.66**	**1.47**	**2.83**
~ of which India#	*4.77*	*5.18*	*5.16*	*4.89*	*5.35*	*5.14*	*0.37*	*7.79*
~ of which China	14.97	14.74	14.76	15.09	15.74	15.08	0.12	0.78
Total world	**96.92**	**99.36**	**98.63**	**99.67**	**102.42**	**100.03**	**3.10**	**3.20**

Source: OPEC monthly report, September 2022

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

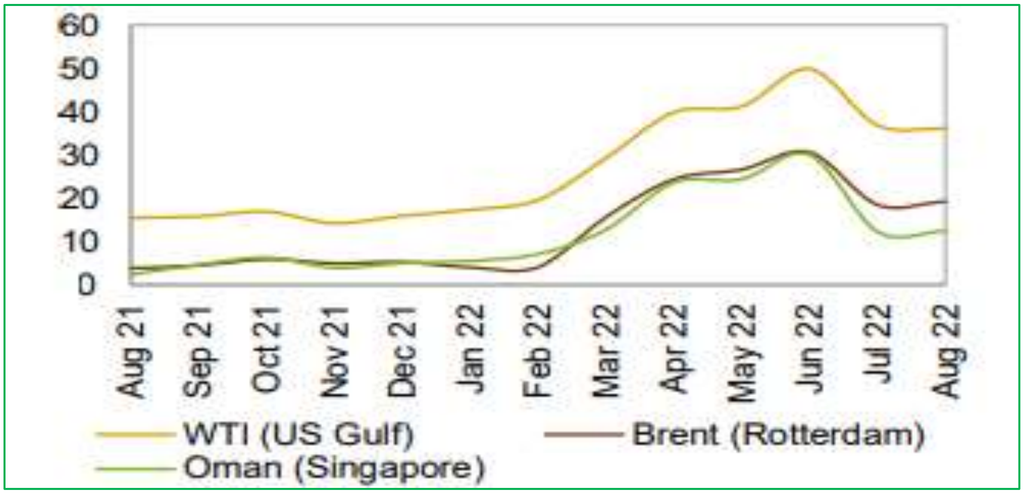
*Note: *2021=Estimation and 2022 = Forecast. Totals may not add up due to independent rounding*

Global petroleum product prices

USGC refining margins against WTI lost some ground in August mainly affected by heavy pressure from the top of the barrel. This was attributed to gasoline consumption levels signaling a slowdown in demand as the summer season approaches an end. However, products in the middle and bottom sections of the barrel performed positively as their supply/demand balances remained relatively tight compared with the historical average. The shutdown of the 435 tb/d BP Plc crude distillation unit in Whiting, Indiana, spurred concerns over fuel availability, which likely limited the declines in USGC product prices. Nonetheless, this support was offset by the weakness associated with gasoline markets. In general, product prices declined in August impacted by the approaching end of the driving season amid expectations of seasonally softer fuel demand going forward, while y-o-y product output levels remained relatively strong over the month.

Refinery margins in Rotterdam against Brent increased to show slight gains, supported by robust demand side performance in the middle of the barrel, despite supply-side pressures from strong refinery product output levels. The high natural gas price environment exerted pressure on refinery operational costs, as a large proportion of European refiners rely on natural gas for power generation. European refinery processing rates in August increased m-o-m by a slight 20 tb/d, according to preliminary data. Refinery margins against Brent in Europe averaged $19.27/b in August, up by 82¢/b compared with a month earlier, but higher by $15.46 y-o-y.

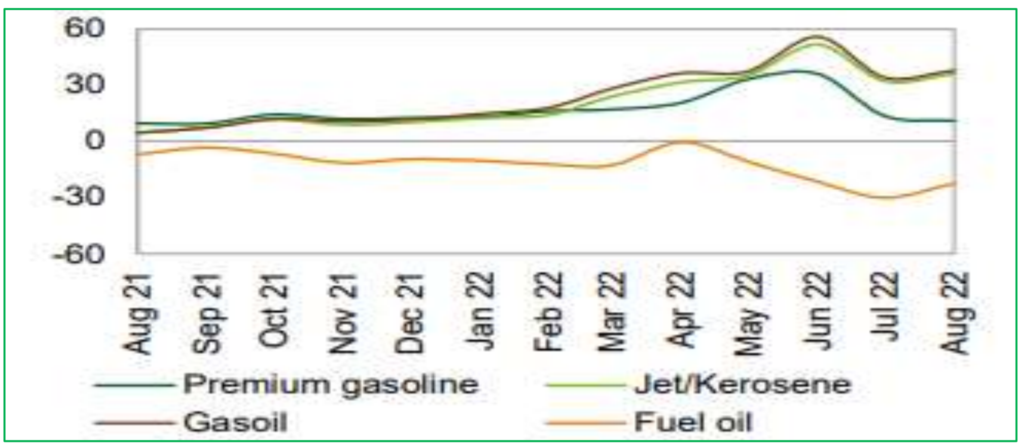
Figure 4: Refining Margins ($/bbl)



Source: Argus and OPEC

The Asian gasoline 92 crack spread fell mainly impacted by supply-side dynamics and growing gasoline availability in the region. The Singapore gasoline crack spread against Oman in August averaged $10.92/b, down by $2.56 m-o-m but up by $1.35 y-o-y.

Figure 5: Singapore crack Spreads vs. Dubai ($/bbl)



Source: Argus and OPEC

The Singapore gasoil crack spread rose, partially recovering the losses registered in July. This was reflective

of an improvement in regional consumption levels. The Singapore gasoil crack spread against Oman averaged $37.76/b, up by $3.81 m-o-m and by $33.36 y-o-y.

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

Singapore product prices	Price ($/b) in August 2022	MoM (%) change	YoY (%) change
Naphtha	72.64	-12.2%	2.3%
Premium gasoline (unleaded 95)	110.57	-9.0%	36.3%
Regular gasoline (unleaded 92)	107.25	-7.8%	35.9%
Jet/Kerosene	132.39	-1.9%	78.8%
Gasoil/Diesel (50 ppm)	139.23	-3.8%	82.6%
Fuel oil (180 cst 2.0% S)	133.62	-1.9%	81.7%
Fuel oil (380 cst 3.5% S)	73.78	1.5%	18.4%

Source: OPEC

Petroleum products consumption in India

Monthly Review:

- Overall consumption of all petroleum products in August 2022 with a volume of 17.8 MMT registered a growth of 11.30% on volume of 16.0 MMT in August 2021.
- MS (Petrol) consumption during the month of August 2022 with a volume of 3.0 MMT recorded a growth of 11.65% on volume of 2.69 MMT in August 2021.
- HSD (Diesel) consumption during the month of August 2022 with a volume of 6.33 MMT recorded a growth of to 13.05% on volume of 5.60 MMT in the month of August 2021.
- LPG consumption during the month of August 2022 with a volume of 2.39 MMT registered a growth of 2.90% over the volume of 2.32 MMT in the month of August 2021
- ATF consumption during August 2022 with a volume of 0.596 MMT registered a growth of 56.3% over the volume of 0.381 MMT in August 2021.
- Bitumen consumption during August 2022 with a volume of 0.471 MMT registered a growth 42.12% over volume of 0.331 MMT in the month of August 2021.
- Kerosene consumption registered de-growth of 75.46% during the month of August 2022 as compared to August 2021.

Table 4: Petroleum products consumption in India, August 2022

CONSUMPTION OF PETROLEUM PRODUCTS (P)	Consumption in '000 MT	MoM (%) change	YoY (%) change
LPG	2,394	-0.6%	2.9%
Naphtha	1,157	1.5%	13.1%
MS	3,005	7.0%	11.6%
ATF	596	2.4%	56.3%
SKO	32	35.8%	-75.5%
HSD	6,338	-4.5%	13.1%
LDO	67	10.2%	-18.3%
Lubricants & Greases	340	-1.2%	11.5%
FO & LSHS	601	7.0%	8.9%
Bitumen	471	6.9%	42.1%
Petroleum coke	1,240	-7.8%	-25.8%
Others	1,569	24.1%	73.5%
TOTAL	**17,810**	**1.1%**	**11.3%**

Source: PPAC

Natural Gas Market

Natural Gas Price – Monthly Review

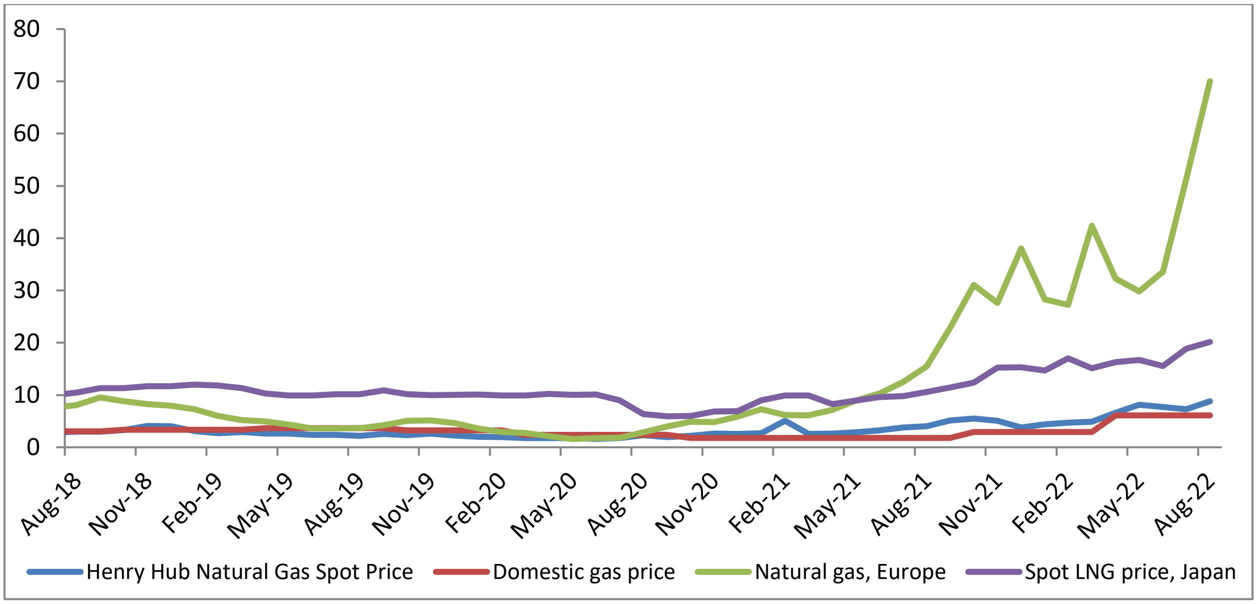
- Natural gas spot prices at the U.S. Henry Hub benchmark averaged $8.81 per million British thermal units (MMBtu) in August 2022. High temperatures across the US, boosted the electricity demand, thereby increasing the prices of the gas.

- In Europe, gas prices rose sharply amid ongoing disruptions at Nord Stream 1. The natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe has been trading at averaged $70.0 per MMBtu.

- Japan Liquefied Natural Gas Import Price is averaging at $20.15 per MMBtu for August 2022, up from $18.88 per MMBtu last month. The rise in prices is a result of persistent cold weather conditions in Japan that results in increase in natural gas heating expenditures during winter.

- The price of domestically produced natural gas is $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 6: Global natural gas price trends ($/mmbtu)



Source: EIA, World Bank

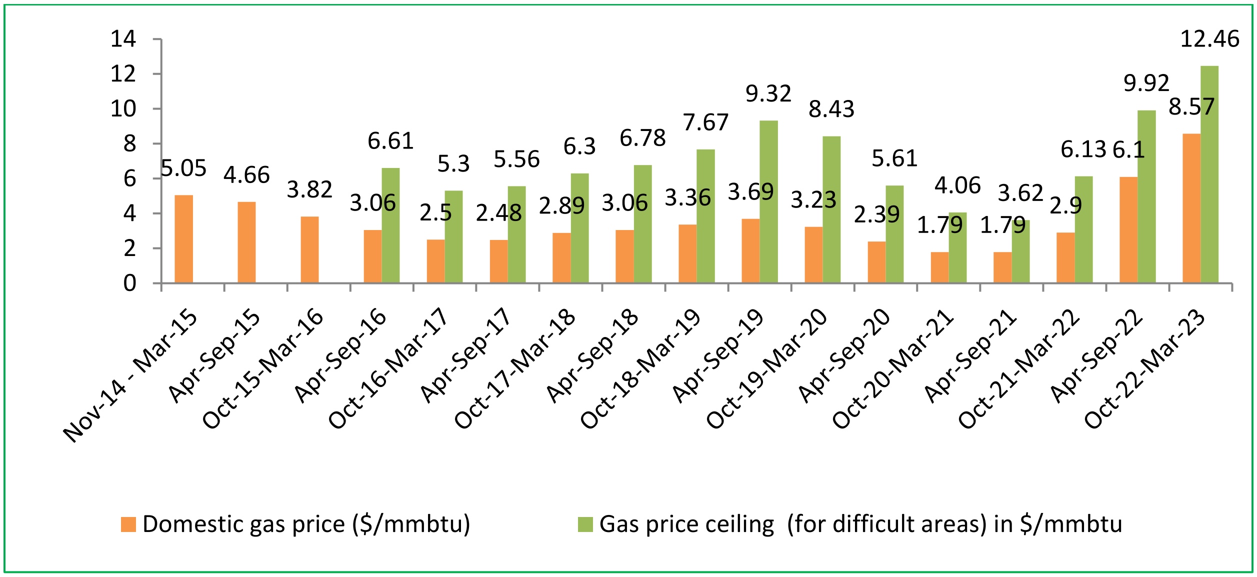
Table 5: Gas price

Natural Gas	Price ($/MMBTU) in August 2022	MoM (%) change	YoY (%) change
India, Domestic gas price (1)	8.57*	40.5%	195.5%
India, Gas price ceiling – difficult areas (1)	12.46*	25.6%	103.3%
Henry Hub	8.81	21.0%	117.5%
Natural Gas, Europe	70.04	36.5%	352.2%
Liquefied Natural Gas, Japan	20.15	6.7%	90.5%

Source: EIA, PPAC, World Bank

* Effective October 1, 2022, India's domestic gas price and India's gas prices for difficult areas increased

Figure 7: Domestic natural gas price



Source: PPAC

Indian Gas Market

- Gross production of natural gas for the month of August, 2022 was 2896 MMSCM (decrease of 0.4% over the corresponding month of the previous year).
- Total imports of LNG (provisional) during the month of August 2022 were 2369 MMSCM (decrease of 18.9 % over the corresponding month of the previous year).
- Natural gas available for sale during August 2022 was 4736 MMSCM (decrease of 10.5 % over the corresponding month of the previous year).
- Total consumption during August 2022 was 4966 MMSCM (provisional). Major consumers were fertilizer (34%), City Gas Distribution (CGD) (22%), Power (13%), Refinery (7%) and Petrochemicals (2%)

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

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of August, 2022 was 2896 MMSCM (decrease of 1.0% over the corresponding month of the previous year).

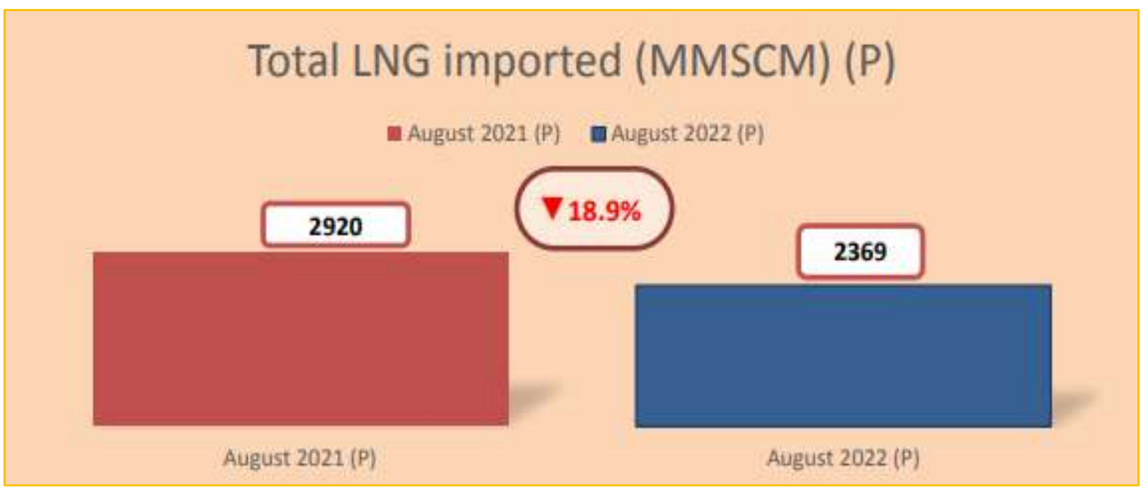
Figure 8: Domestic natural gas Gross production (Qty in MMSCM)

Source: PPAC

2. LNG imports:

Total imports of LNG (provisional) during the month of August 2022 were 2369 MMSCM (decrease of 18.9% over the corresponding month of the previous year 2920 (MMSCM).

Figure 9: LNG imports (Qty in MMSCM)

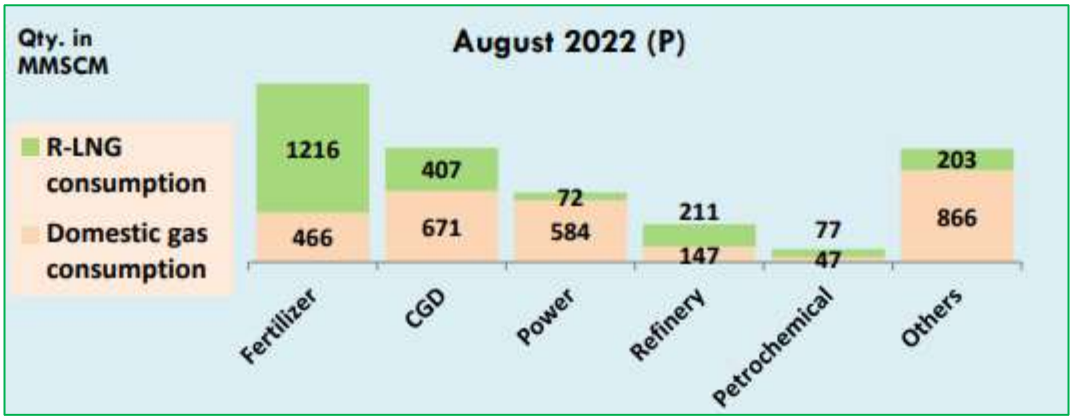


Source: PPAC

3. Sectoral Consumption of Natural Gas:

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

Figure 10: Sectoral Consumption of Natural Gas (Qty in MMSCM) in August 2022



Source: PPAC

Key developments in Oil & Gas sector during August 2022

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

1. Production of Crude Oil

Indigenous crude oil and condensate production during August 2022 was down by 3.3 % than that of August 2021 as compared to a de-growth of 3.8 % during July 2022. OIL registered a growth of 3.7 % and ONGC registered a de-growth of 1.0 % during August 2022 as compared to August 2021. PSC registered de-growth of 12.2 % during August 2022 as compared to August 2021. Degrowth of 1.1 % was registered in the total crude oil and condensate production during April - August 2022 over the corresponding period of the previous year.

2. Production of Natural Gas

Gross production of natural gas for the month of August 2022 was 2896 MMSCM which was lower by 1.0% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 14332 MMSCM for the current financial year till August 2022 was higher by 2.5% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Crude oil processed during August 2022 was 19.5 MMT, which was 5.9 % higher than August 2021. Growth of 12.3 % was registered in the total crude oil processing during April-August 2022 over the corresponding period of the previous year.

4. Production of Petroleum Products

Production of petroleum products saw a growth of 7.0 % during August 2022 over August 2021 as compared to a growth of 6.2% during July 2022. Growth of 10.7 % was registered in the total POL production during April-August 2022 over the corresponding period of the previous year.

Key Policy developments in Energy sector

- **Open House with Hon'ble Minister of Petroleum & Natural Gas and Housing & Urban Affairs on 9th September 2022 at 1800 hrs., Hyatt Regency, New Delhi**

The Federation of Indian Petroleum Industry (FIPI) organized an open house with Shri Hardeep S Puri, Hon'ble Minister of Petroleum & Natural Gas and Housing & Urban Affairs on 9th September 2022 at Hyatt Regency, New Delhi. At the event, the Hon'ble Minister witnessed the contract exchange for 30 Discovered Small Fields (DSF) blocks under DSF bid round-III and 4 CBM blocks under special CBM bid round 2021 awarded to 14 Exploration & Production (E&P) companies. During the event, Minister also unveiled the logo for India Energy Week (IEW) 2023, the Ministry's flagship event taking place from 6th -8th February 2023 in Bengaluru, India.

- **Centre reduced the windfall tax on domestically produced crude oil to Rs 8,000 a tonne, export duty on diesel halved**

The Centre decreased the windfall tax on domestic crude oil to Rs 8,000 per tonne from earlier Rs 10,500 per tonne and halved the levy on export of diesel to Rs 5 per litre. Rs 5 per litre tax on aviation turbine fuel was also scrapped.

The revision comes into effect from 2nd October, 2022 with the reduction in the global oil prices. This is the sixth revision of windfall tax since its implementation on July 1. In its last revision on September 16, the government reduced the windfall tax on petroleum crude to Rs 10,500 per tonne from Rs 13,300 per tonne. On July 1, Centre imposed an export duty of Rs 6 per litre on petrol and ATF and Rs 13 per litre duty on export of diesel. Also, a windfall tax of Rs 23,250 per tonne was imposed on the sale of domestic crude.

- **Cabinet approved Production Linked Incentive Scheme on 'National programme on High Efficiency Solar PV Modules' for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Modules**

The Cabinet, chaired by Prime Minister, Shri Narendra Modi, has approved the Ministry of New & Renewable Energy's proposal for implementation of the Production Linked Incentive Scheme (Tranche II) on 'National programme on High Efficiency Solar PV Modules', with an outlay of Rs.19,500 crore for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Modules.

The national programme on High Efficiency Solar PV Modules aims to build an ecosystem for manufacturing of high efficiency solar PV modules in India, and thus reduce import dependence in the area of Renewable Energy. It will strengthen the Atamanirbhar Bharat initiative and generate employment.

Solar PV manufacturers will be selected through a transparent selection process. PLI will be disbursed for 5 years post commissioning of solar PV manufacturing plants on sales of high efficiency solar PV modules from the domestic market will be incentivized.

The outcomes/benefits expected from the scheme are as follows:

i. It is estimated that about 65,000 MW per annum manufacturing capacity of fully and partially integrated, solar PV modules would be installed.

ii. The scheme will bring direct investment of around Rs.94,000 crore.

iii. Creation of manufacturing capacity for Balance of Materials like EVA, Solar glass, Back sheet, etc.

iv. Direct employment of about 1,95,000 and indirect employment of around 7,80,000 persons.

v. Import substitution of approximately Rs.1.37 lakh crore.

vi. Impetus to Research and Development to achieve higher efficiencies in Solar PV Modules.

- **India launched the production of AVGAS 100 LL, special aviation fuel**

Shri Hardeep Singh Puri, Minister of Petroleum and Natural Gas & Housing and Urban Affairs at the launch of AVGAS 100 LL, stated that, “We are undergoing a remarkable transformation which is almost revolutionary. We are reducing dependence on imported fuels by promoting biofuel blending, green hydrogen and introduction of electric vehicles.” Shri Hardeep Singh Puri in the presence of General (Dr.) V. K. Singh (Retd.) Minister of State for Civil Aviation and Road Transport and Highways, launched AVGAS 100 LL, special aviation fuel meant for piston engine aircrafts and Unmanned Ariel Vehicles. Currently, India is importing this product from European countries. The launch event was hosted by Indian Oil at Hindan Airforce Station and witnessed participation by senior officials from Indian Airforce, senior officials from MoPNG and MoCA and officials from Flying Training Organizations (FTOs).

Highlighting the importance of launch of indigenous AV GAS 100 LL, the Minister for Petroleum and Natural Gas mentioned that the launch of indigenous AV GAS 100 LL is important to serve the needs of a thriving aviation industry with increase in footfall on airports, rise in number of aircrafts and Flying Training Organizations (FTOs) in trainee aircrafts for pilot training in future. As the demand for air transport in India is expected to increase manifolds in the future, there is going to be a huge demand for trained pilots also. And for this, the number of FTOs is also expected to increase significantly, he added.

- **Cabinet approves Production Linked Incentive Scheme on ‘National programme on High Efficiency Solar PV Modules’ for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Modules**

Government approved proposal for implementation of the Production Linked Incentive Scheme (Tranche II) on ‘National programme on High Efficiency Solar PV Modules’, with an outlay of Rs.19,500 crore for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Modules.

The national programme on High Efficiency Solar PV Modules aims to build an ecosystem for manufacturing of high efficiency solar PV modules in India, and thus reduce import dependence in the area of Renewable Energy. It will strengthen the Atmanirbhar Bharat initiative and generate employment.

Solar PV manufacturers will be selected through a transparent selection process. PLI will be disbursed for 5 years post commissioning of solar PV manufacturing plants on sales of high efficiency solar PV modules from the domestic market will be incentivized.

The outcomes/benefits expected from the scheme are as follows:

i. It is estimated that about 65,000 MW per annum manufacturing capacity of fully and partially integrated, solar PV modules would be installed.

ii. The scheme will bring direct investment of around Rs.94,000 crore.

iii. Creation of manufacturing capacity for Balance of Materials like EVA, Solar glass, Backsheet, etc.

iv. Direct employment of about 1,95,000 and indirect employment of around 7,80,000 persons.

v. Import substitution of approximately Rs.1.37 lakh crore.

vi. Impetus to Research and Development to achieve higher efficiencies in Solar PV Modules.

****

Research, analysis & compilation by:

Economic Policy & Planning Team -FIPI

Email: prai@fipi.org.in