RV VE Kommunicate

POLICY PULSE

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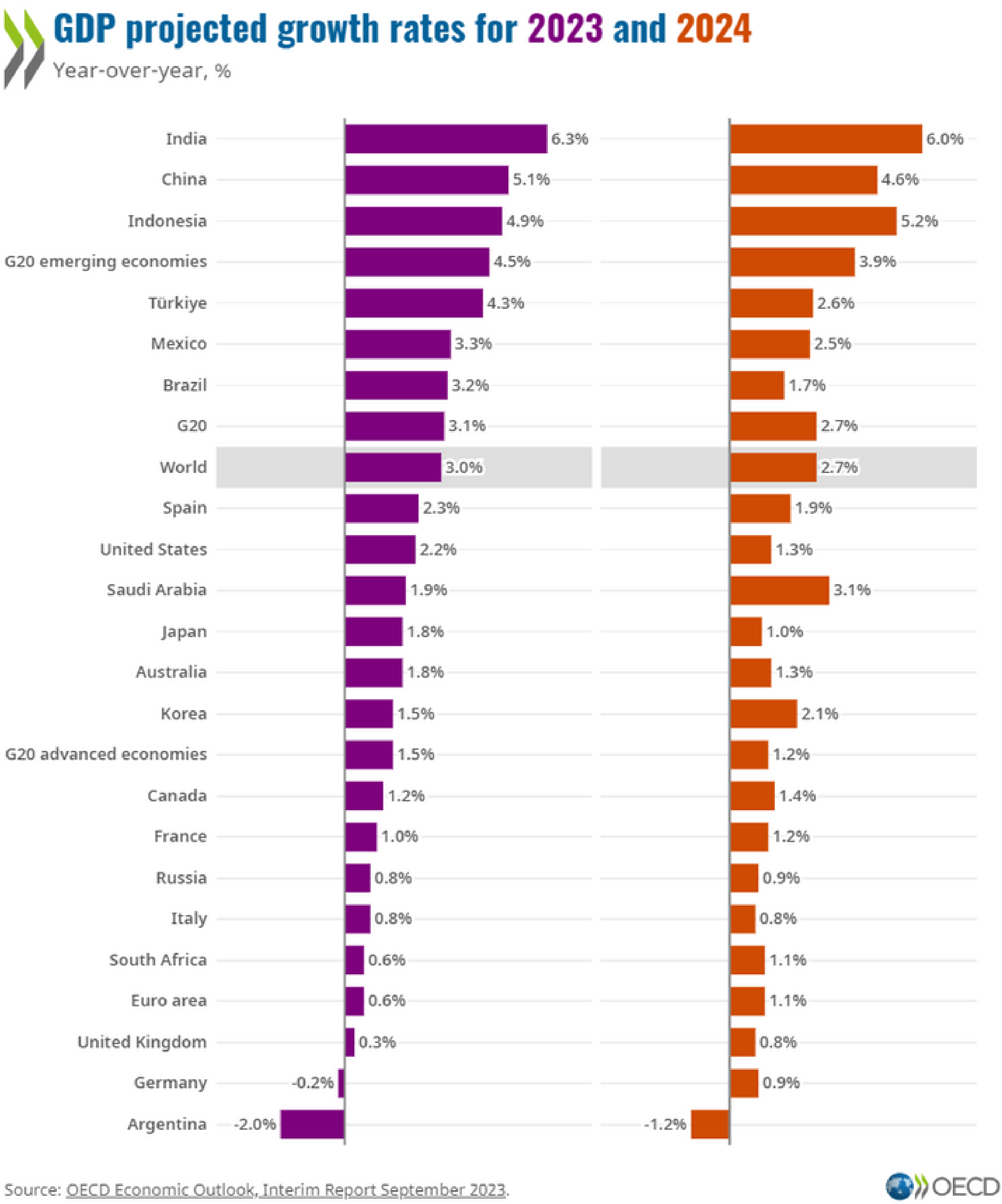
ECONOMY
GLOBAL ECONOMY

The State of the World Economy and India: Challenges and Prospects

In the coming year 2024, continuing the momentum of 2023, India is expected to remain the fastest growing economy in the world, though the growth rate will slightly decline to 6%. Indonesia will occupy the second spot, dethroning China, as per the OECD's projections. One country, namely Argentina, will witness a negative growth in 2024 compared to two countries (Germany and Argentina) which realized negative growth rates in 2023.



Source: OCED Economic Outlook, Interim Report September 2023

ECONOMY
GLOBAL ECONOMY

Global GDP to grow at 3% in 2023, and 2.7% in 2024

Further what emerges from the figure above is that as we step into the month of September 2023, the global economic landscape remains marked by both promise and uncertainty. The world economy embarked on the year 2023 with strong momentum, buoyed by lower energy prices and the gradual reopening of China's economic engine. However, the road ahead appears to be less smooth, with various factors poised to moderate this growth.

With the tightening of monetary policies in many economies including the US and several EU's countries, the initial vigour of 2023 is expected to wane as we progress further into the year. The tightening of monetary policies has already begun to exert its influence, as reflected by both business and consumer confidence taking a downturn. All these factors combine to project global GDP growth at a subpar 3% in 2023, followed by a modest 2.7% in 2024, primarily due to the necessary macroeconomic policy adjustments aimed at curbing inflation.

In the United States, annual GDP growth is anticipated to slow from 2.2% in 2023 to 1.3% in 2024. Tighter financial conditions are expected to temper demand pressures. Meanwhile, in the euro area, where demand has already been subdued, GDP growth is projected to ease to 0.6% in 2023, with a slight uptick to 1.1% in 2024 as the adverse effects of high inflation on real incomes gradually recede. China, facing subdued domestic demand and structural stresses in its property markets, is expected to experience slower growth, with rates of 5.1% in 2023 and 4.6% in 2024.

Headline inflation to remain above central bank targets in most economies

While headline inflation is on the decline, core inflation remains stubborn in many economies. Cost pressures and high margins in certain sectors continue to underpin this trend. Inflation is anticipated to moderate gradually over 2023 and 2024, but it is expected to persist above central bank targets in most economies. In the G20 economies, headline inflation is projected to ease to 6% in 2023 and 4.8% in 2024, with core inflation in advanced G20 economies declining from 4.3% in the current year to 2.8% in 2024.

Slowdown in China to reverberate through global economies

The economic outlook is not without its risks. Key concerns revolve around uncertainties regarding the strength and speed of monetary policy transmission and the lingering persistence of inflation. Higher interest rates could have more potent adverse effects than anticipated, and increased inflation persistence might necessitate further policy tightening, possibly exposing financial vulnerabilities. A sharper-than-expected slowdown in China also looms as a significant risk that could reverberate through global output growth.

GLOBAL ECONOMY

Monetary Policy and Fiscal Challenges

Monetary policy is expected to remain restrictive until there are clear indications that underlying inflation pressures have durably abated. Policy interest rates (repo rate is known as the policy rate. It is used to signal the financial system to adjust its lending and borrowing operations) in most economies, including the United States and the euro area, appear to be nearing their peak, with policy decisions becoming finely balanced as the effects of higher interest rates become visible.

Governments worldwide are grappling with mounting fiscal pressures stemming from rising debt burdens and increased spending on aging populations, climate transition, and defines. Urgent efforts are needed to rebuild fiscal space in the short term and establish credible medium-term fiscal plans to align macroeconomic policies and ensure debt sustainability. *The following intervention might be helpful*:

- ***Structural Policy Efforts***

Structural policy (structural policy affects economic structures and the choices made by households and businesses, they are aimed at increasing the labour supply and productivity) efforts need to be revitalized to bolster growth prospects. Reducing barriers in labour and product markets and enhancing skills development are critical steps to boosting investment, productivity, labour force participation, and fostering more inclusive growth.

- **Reviving Global Trade**

One paramount priority is the revival of global trade, a cornerstone of long-term prosperity for both advanced and emerging-market economies. Concerns about economic security should not hinder the exploration of opportunities to reduce trade barriers, particularly in service sectors.

- **Enhanced International Cooperation**

Lastly, enhanced international cooperation is imperative to achieve better coordination and expedite progress in carbon mitigation efforts. Addressing climate change is a shared global responsibility that transcends borders and demands unified action.
In conclusion, as September 2023 unfolds, the world economy stands at a crossroads. While challenges and uncertainties persist, there is also ample opportunity for nations to come together, implement prudent policies, and steer the global economy toward a path of sustainable and inclusive growth. Only through collective efforts can we navigate the complex economic terrain ahead and build a more resilient and prosperous future.

ECONOMY
GLOBAL ECONOMY

Economy in Asia:

Asia to grow at 4.7% in 2023 and 4.8% in 2024

In the Asian Development Outlook (ADO) (by the Asian Development Bank) for September 2023, several key messages shape the economic outlook for the region. Economic growth of the region has been revised to 4.7%, primarily due to slower expansions in South Asia and Southeast Asia. However, the growth forecast for 2024 remains unchanged at 4.8%. In terms of inflation, there is a positive trajectory as it is expected to decline from 4.4% in the previous year to 3.6% in 2023 and further to 3.5% in 2024. This decline is notably influenced by China (PRC), where the inflation forecast has been adjusted down to 0.7%.

Amid these developments, downside risks (an estimation of a security's potential loss in value if market conditions bring about a decline in that security's price) to the economic outlook have strengthened, with particular attention required for vulnerabilities in the PRC's property sector. Furthermore, as the era of easy monetary policy ends, financial stability risks necessitate continued vigilance in vulnerable economies. On a positive note, a swifter-than-expected decline in inflation in the United States could provide a boost to Asian prospects.

INDIAN ECONOMY

Indian Economy Poised to Become the Third-largest Economy in the world by 2030

As we step into the month of September 2023, India's economic prospects are a topic of much discussion and optimism. According to Chief Economic Advisor V Anantha Nageswaran, the Indian economy is expected to maintain a robust growth rate, averaging 6.5% annually between 2023 and 2030. This comes on the heels of impressive growth figures, with a 9.1% expansion in FY22 and 7.2% in FY23.

Nageswaran also provides his perspective on these growth projections. He notes that the current global economic landscape is markedly different from the period between 2003 and 2008 when globalization was at its peak, and interest rates were low. Today, we face different kind of challenges in the form of geopolitical fragmentation, geo-economic inefficiencies, and a partial reversal of globalization. Despite these challenges, India's growth forecast remains one of the world's highest at 6.5% in real terms (inflation-adjusted value of all goods and services produced by an economy in a given year) and 11% in nominal terms (determined as value of all goods and services produced by an economy at current prices, without adjustment for inflation).

The CEA also pointed out that one striking aspect of India's economic journey is its remarkable rise on the global stage. Over the past eight years, India has climbed from the 10th to the fifth-largest economy globally, and it is poised to become the third-largest economy in the world by the end of this decade.

Key factors that will contribute to India's economic growth in the coming years include:

- ***Global Supply Chain Integration:*** Nageswaran emphasizes the need for India to integrate into the global supply chain effectively. India can seize opportunities arising from geopolitical developments and position itself as an attractive destination for the "China-plus one" strategy.
- ***Manufacturing Boost:*** India is expected to experience increasing share of manufacturing in Gross Domestic Product (GDP). India is also building resilient value chains and investing in last-mile connectivity infrastructure that will help the country withstand global tensions, and India must actively.
- ***Support for MSMEs:*** Micro, small, and medium enterprises (MSMEs) play a significant role in India's economic landscape. Improved access to finance and talent while reducing bureaucratic hurdles will help India sustain its growth.
- ***Long-Term Private Sector Investment:*** Encouraging the private sector to think in terms of long-term, large-scale investments and promoting research and development will contribute to a stronger manufacturing sector.
- ***Agriculture's Relevance:*** Despite the country's industrialization, agriculture remains important. Leveraging technology and innovation can make agriculture more efficient and sustainable.

- ***Middle-Class Growth:*** India's burgeoning middle class, which is expected to encompass 55% of the population is expected to drive demand for quality goods and services. Providing the right education, skills, and opportunities to this demographic is imperative.
- ***Empowering Women:*** Ensuring a safe, inclusive, and supportive workplace for women is vital to harnessing their full potential in the workforce.

In conclusion, while India faces global economic uncertainties, it continues to chart a path of growth and progress. The government, private sector, and individuals all have roles to play in realizing the nation's economic potential. With strategic planning, investment in key sectors, and a focus on inclusivity, India's economic trajectory remains promising as we move further into September 2023.

Performance of Key Indicators

The combined Index of Eight Core Industries (ICI) increased by 8.2 per cent (provisional) in August 2023 as compared to the Index of August 2022. Even at the disaggregated level, the production of most of eight core industries (namely, Cement, Coal, Crude Oil, Electricity, Fertilizers, Natural Gas, Refinery Products and Steel) recorded impressive growth in August 2023 over the corresponding month of last year. ICI measures combined and individual performance of production of eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity. The Eight Core Industries comprise 40.27 % of the weight of items included in the Index of Industrial Production (IIP).

For the five-month period April-August of 2023-34, the cumulative growth rate of ICI is 7.7% (provisional) as compared to the corresponding period of last year.

ECONOMY

INDIAN ECONOMY

Summary of the Index of Eight Core Industries

Cement production (weight: 5.37%) increased by 18.9% in August, 2023 over August, 2022. Its cumulative index increased by 12.7% during April to August, 2023-24 over corresponding period of the previous year.

Coal production (weight: 10.33%) increased by 17.9% in August, 2023 over August, 2022. Its cumulative index increased by 11.5% during April to August, 2023-24 over corresponding period of the previous year.

Crude Oil production (weight: 8.98%) increased by 2.1% in August, 2023 over August, 2022. Its cumulative index declined by 0.4% during April to August, 2023-24 over corresponding period of the previous year.

Electricity generation (weight: 19.85%) increased by 14.9% in August, 2023 over August, 2022. Its cumulative index increased by 5.3% during April to August, 2023-24 over corresponding period of the previous year.

Fertilizer production (weight: 2.63%) increased by 1.8%in August, 2023 over August, 2022. Its cumulative index increased by 7.5% during April to August, 2023-24 over corresponding period of the previous year.

Natural Gas production (weight: 6.88%) increased by 10.0% in August, 2023 over August, 2022. Its cumulative index increased by 3.9% during April to August, 2023-24 over corresponding period of the previous year.

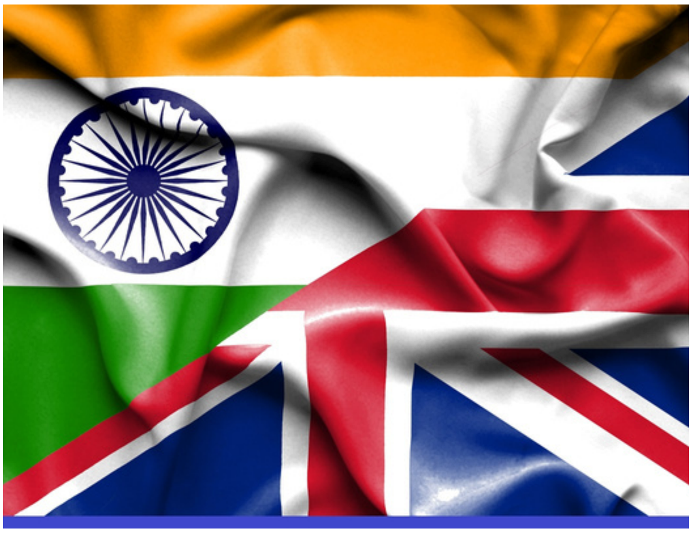
Petroleum Refinery production (weight: 28.04%) increased by 9.5% in August, 2023 over August, 2022. Its cumulative index increased by 3.7% during April to August, 2023-24 over corresponding period of the previous year.

Steel production (weight: 17.92%) increased by 10.9% in August, 2023 over August, 2022. Its cumulative index increased by 14.8% during April to August, 2023-24 over corresponding period of the previous year.

FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

INDIA

India and UK FTA to be signed by month-end



The eagerly awaited India-UK Free Trade Agreement (FTA) is on the brink of being signed this month, as all outstanding issues have been resolved, according to an official source. UK Prime Minister Rishi Sunak is scheduled to visit India in late October to finalize the ambitious agreement, expected to boost bilateral trade in goods and services while increasing foreign direct investment flows.

Although contentious issues in the proposed FTA have been resolved, the Bilateral Investment Treaty (BIT) will be signed later due to ongoing disagreements. In the services sector, the UK secured national treatment for its services businesses and greater professional freedom in India. The FTA negotiations, which began in early 2021, have addressed sensitive topics such as whiskey and automobile duties.

The deal offers potential relief amid a diplomatic spat with Canada and aims to bolster India's exports to the UK, including textiles, gems, and pharmaceuticals. Imports from the UK encompass precious stones, engineering goods, chemicals, and machinery.

As far as India was concerned, the taxes on whisky and automobiles were the two most sensitive topics in the FTA talks.

Tariff reductions on imports from the UK would be tailored in the auto sector such that the impact on domestic manufacturing is modest. In the spirits trade, both countries have narrowed their views on immediate duty cuts, the speed with which decreases will be implemented in the coming years, and other requirements.

In the case of wines and other spirits, India may lower import tariff from 150% to 100%, then to 50% over a 10-year period. The UK had demanded that duties be reduced to 75% immediately, and subsequently to 30% over the next three years.

India- Bangladesh Joint Working Group Meeting

The 15th Meeting of the Joint Working Group on Trade (JWG) between India and Bangladesh was held on 26th and 27th September, 2023 in Dhaka. During the Joint Working Group (JWG) meeting, India and Bangladesh discussed promoting economic ties. According to the commerce ministry, the two countries discussed several bilateral issues, including the removal of port restrictions,

FREE TRADE AGREEMENT/ BILATERAL DISCUSSIONS

INDIA/WORLD

laying the groundwork for the start of the Comprehensive Economic Partnership Agreement (CEPA), standardisation and mutual recognition of standards, and the supply of essential commodities to Bangladesh. From FY 2022-23, the bilateral trade between the two countries dropped to US$ 14.2 billion from US$ 18.13 billion in FY 2021-22.

WORLD

EU-Kenya Economic Partnership Agreement submitted proposal for approval

On September 28, 2023, the EU-Kenya Economic Partnership Agreement (EPA) has taken a significant step towards approval as the Commission has submitted proposals for signature and conclusion to the Council. This agreement marks a landmark in EU-Africa relations, particularly in climate protection and labour rights.

It promises full access to the EU market for Kenyan goods and encourages EU investments in Kenya by ensuring legal stability.

The EPA includes robust commitments to trade, sustainability, labour rights, gender equality, the environment, and climate change mitigation. Additionally, it aligns with the UN 2030 Agenda and African Union Agenda 2063, fostering green and digital transitions. Upon Council approval, it will proceed to the European Parliament for consent, ultimately paving the way for its implementation.

Thailand Expected to Finalise Three Free Trade Agreements by Next Year

Thailand anticipates sealing free trade deals with the EU, UAE, and Sri Lanka in the second and third quarters of the upcoming year. These agreements are expected to boost annual trade with these partners by US$31 billion, benefiting various sectors. The UAE FTA, expected to be concluded by year-end, taps into its robust purchasing power and strategic location as a hub for Thai exports to the Middle East. Sri Lanka, a vital shipping route, offers processing food, textiles, and jewellery production opportunities. An FTA with the European Free Trade Association (EFTA) may follow in mid-next year, benefiting numerous sectors, including services.

POLICY/ REGULATORY UPDATES

INDIA

Tamil Nadu Envisions to be Among the Top 20 global Startup Destinations

Tamil Nadu is one of the most progressive states in the country, serving as the nation's economic growth engine. Tamil Nadu has a thriving startup environment that prioritises social entrepreneurship. According to the Blink Startup Ecosystem Report, 2022, Chennai and Coimbatore are two of the top 400 Startup Cities in the world. According to the Indian Startup Ecosystem Report 2022, Chennai is the country's fourth most important startup hub. Other emerging centres include Coimbatore, Madurai, Tiruchi, Salem, and Vellore.

The state of Tamil Nadu released the 'Startup and Innovation Policy 2023' with the vision of establishing a supportive ecosystem and democratized ecosystem that fosters innovation and entrepreneurship.

According to the policy, the state will facilitate easy investment and seek to attract funds from potential investees. According to the policy, the state government will create a Rs 100 crore fund called the Tamil Nadu Co-Creation Fund for investing in regional and thematic funds. The fund is to be managed by respective investors and coordinated by StartupTN.

In addition, the state will contribute 40% (with a ceiling of Rs 10 crore) in regional, rural impact, women and climate action-focused funds and 20% (with a ceiling of Rs 5 crore) in other thematic funds promoted by the private sector. The fund size should be Rs 20 crore and above in case of a new fund. The government will bear 75% and 50% of the fund setup costs for the categories mentioned above, respectively.

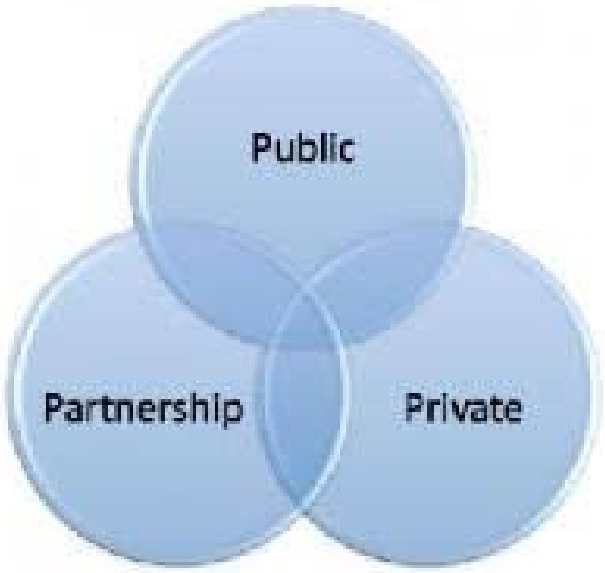
Further, the policy added that each year, 10 growth-stage Startups will benefit through this scheme. Also, startups will be empowered to become investor-ready through exposure to business planning sessions.

Odisha Government Aims to Attract Private Investments in Public Infrastructure

The Odisha State Finance Department has announced a new Public Private Partnership (PPP) Policy for 2023 to attract private investments in public infrastructure development. This new policy will apply to 21 focus sectors, including waste management, energy efficiency measures, and renewable and alternative/ non-conventional energy sectors.

According to the policy, projects with a capital cost of up to Rs 10 crore would be approved by the Director of the State Government's PPP committee if they do not require support from the Odisha Infrastructure Development Fund (OIDF) or the state Viability Gap Funding (VGF).

The government has established the Empowered Committee on Infrastructure (ECI), which is led by the chief secretary, to provide effective oversight. The ECI will approve PPP projects ranging in size from Rs 10 crore to Rs 500 crore. For proposals worth more than Rs 500 crore, the ECI will recommend to the High-Level Clearance Authority (HILCA), which is presided over by the chief minister, for final clearance.



According to the official, the fundamental benefit of the new policy is that it seeks to provide value for money to the state, resulting in better and more affordable services over the long term. Further, it will create a conducive environment to utilise the private sector's efficiencies, innovativeness, and flexibility to provide better infrastructure and services at an optimal cost, emphasizing social infrastructure.

Gujarat's RE Policy Focuses on the Development of Hybrid Wind-Solar Projects

The Gujarat Government has released the Draft Renewable Energy Policy 2023, which is set to take effect in 2028. The policy seeks to use around 4,00,000 acres of land and build 100 GW of RE capacity by 2030. It also invites investment totaling 5 lakh crores. The Gujarat Energy Development Agency (GEDA) will serve as the nodal agency, with Gujarat Urja Vikas Nigam Limited (GUVNL) implementing the policy.

The state government will prioritise clean energy investment, employment, skill development, manufacturing, and foster R&D and innovation.

In the state, the draft document promotes the installation of solar, wind, and hybrid solar and wind capacity. The state's 36 GW of solar and 143 GW of wind energy potential will be the main focus.The state's development of Wind-Solar-Hybrid (WSH) projects is the emphasis of the policy. These projects have been divided into Type-A and Type-B categories.

The Type-A category focuses on hybridising existing or under-construction standalone wind and solar projects. Type B is responsible for developing new WSH projects in the state.

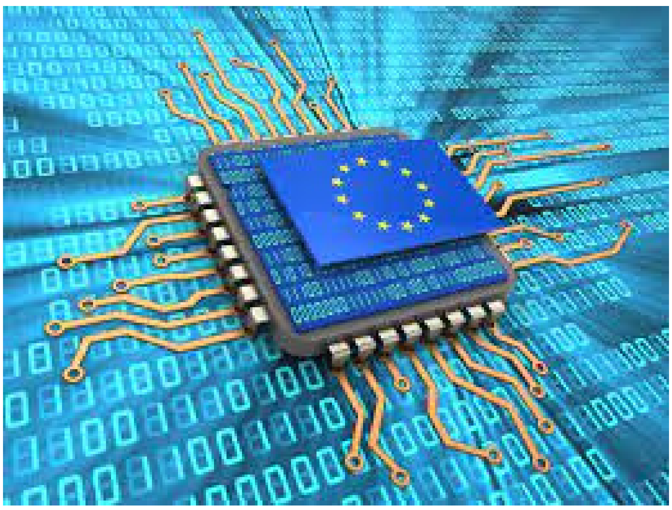
In addition, the RE policy will encourage a voluntary move to green energy, with DISCOMs providing 100% renewable power if a consumer requests it. The electricity will be given at a green power supply tariff set by the Gujarat Electricity Regulatory Commission (GERC).

Also, electricity distribution firms have been encouraged to purchase up to 4 MW of distributed solar power. Tariffs will be set, and the agreement and exchange will follow norms.

Moreover, RE projects would be eligible for carbon credits such as CERs, VERs, Gold Standards, or any other global standards.

WORLD

European Union to Become a Technological Leader in Semiconductors



Semiconductor chips are the foundation of digital and digitised products ranging from smartphones and automobiles, key applications to infrastructures for healthcare, energy, communications, and industrial automation. Presently, the Europe has an overall global semiconductors production market share of less than 10% and is heavily dependent on third-country suppliers.

The European Chips Act was proposed by the Commission in February 2022. The European Parliament and EU Member States derived a political agreement on the Chips Act in April 2023. The adopted measures will assist Europe in meeting its 2030 Digital Decade ambitions, building a greener, more inclusive, more digital Europe.

The primary aim of the Act is to strengthen Europe's research and technology leadership. The act further aims to put a framework in place to increase production capacity from 10% to 20% of the global market by 2030. It will also develop an in-depth understanding of the global semiconductor supply chains.

Three pillars of the European Union Chips Act:

- ***Chips for Europe Initiative*** will support large-scale technological capacity building and innovation. The Initiative will be supported by €3.3 billion of EU funds, which is expected to be matched by funds from Member States.
- A ***framework to incentivise*** public and private investments in manufacturing facilities for chipmakers and suppliers. This will ensure the security of supply and resilience of the Union's

semiconductor sector.

- A ***coordination mechanism*** has been established between the Member States and the Commission to improve cooperation between and among Member States, monitor semiconductor supply, gauge demand, foresee shortages, and, if necessary, activate a crisis stage.

Preliminary round of the Indo-Pacific Economic Framework (IPEF) Supply Chain Text (Pillar 2)

The Indo-Pacific Economic Framework (IPEF) agreement is one of the most ambitious agreement towards trade and supply chains integration. There are 14 member countries in the group, namely US, Australia, Brunei, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, Fiji and Vietnam.

All 14 IPEF members have negotiated the supply chain text. The text was revealed on 8 September 2023, after negotiations were completed on May 28, 2023. The document is expected to be signed in November 2023, after which it will be tabled in the Parliaments of the member countries and reviewed by the Joint Standing Committee on Treaties, with the agreement potentially entering into force in the first quarter of 2024.

The text is focused on enhancing supply chain transparency, encouraging supply chain diversification, mobilising investments, cooperating to address logistical bottlenecks, minimizing market distortion and protecting confidential business information. The text mentions the importance of consultations about supply chains' impacts on workers, communities, women, Indigenous Peoples, persons with disabilities, rural and remote community populations and minorities.

Additionally, the parties pledge to share information regarding essential supply chains, supply chain disruption, and labour rights through a series of committees. Committees will be formed within 30 days of the agreement's implementation, and the committees will pick chairs after 60 days and develop terms of reference and work programmes after 120 days.

Moreover, all the parties shall identify their critical sectors or key goods after taking inputs from relevant stakeholders such as the private sector, government authorities, academia, and non-governmental organizations. The factors to be considered while identifying critical sectors are

- Geographical factors, including logistics bottlenecks;
- Level of dependence on single suppliers;
- The availability of domestic production capacity;
- the impact of a potential shortage on its national security, public health and safety

Further, all the signatories of this agreement consistently act according to their respective obligations under the WTO agreement.

OPINION COLUMN

Getting Inside Economics

Aditya Sinha

Understanding Macroeconomic Instability: Causes and Consequences

Macroeconomic instability is a term used to describe the condition in which an economy experiences significant fluctuations and uncertainty in its key macroeconomic indicators. These indicators include economic growth, inflation, unemployment, exchange rates, and fiscal and monetary policy. When these variables deviate substantially from their long-term trends or exhibit unpredictable swings, it can lead to economic challenges that affect individuals, businesses, and the overall stability of a nation. In this article, we will delve into the causes and consequences of macroeconomic instability.

Causes of Macroeconomic Instability

- **Business Cycles:** Macroeconomic instability often stems from the natural ebbs and flows of the business cycle. Economies go through periods of expansion, where GDP grows, followed by contractions or recessions, where GDP shrinks. These cyclical fluctuations can disrupt economic stability by causing unemployment, reduced consumer spending, and decreased business investment.

- **Policy Shocks:** Government policies, both fiscal (related to taxes and government spending) and monetary (related to interest rates and money supply), can impact macroeconomic stability. For example, sudden and unexpected changes in interest rates or taxation can disrupt the spending and investment plans of individuals and businesses.

- **External Factors:** Economic instability can also be triggered by external events such as international conflicts, natural disasters, or global economic crises. These shocks can disrupt trade, increase uncertainty, and affect a nation's overall economic performance.

- **Financial Market Volatility:** The instability in financial markets, including stock markets, bond markets, and currency markets, can have a profound impact on an economy's stability. Financial crises, like the one in 2008, can lead to severe economic downturns and instability.

Consequences of Macroeconomic Instability

Unemployment: A key consequence of macroeconomic instability is high unemployment. During recessions or economic contractions, businesses may cut back on hiring or lay off workers to cope with reduced demand, leading to a rise in joblessness.

- **Reduced Consumer and Business Confidence:** Instability can erode consumer and business confidence in the economy's future prospects. When people and businesses are uncertain about the economic environment, they may postpone spending, investing, or hiring, further exacerbating economic problems.

- **Inflation or Deflation:** Rapid fluctuations in the economic activities can lead to inflation (a sustained increase in the general price level) or deflation (a sustained decrease in prices). Both can be harmful, with inflation eroding purchasing power and deflation discouraging spending and investment.

- **Fiscal and Monetary Challenges**: Governments and central banks often respond to economic instability by implementing policy measures such as stimulus spending or interest rate adjustments. However, these actions can lead to fiscal deficits or unsustainable levels of public debt.

- **Income Inequality**: Economic instability can disproportionately affect different segments of the population. Those with lower incomes or fewer assets may be hit hardest, exacerbating income inequality within a society.

Macroeconomic instability is a complex and multifaceted phenomenon with various causes and consequences. It is essential for policymakers, economists, and the general public to monitor and understand the factors contributing to instability to mitigate its negative effects.

Policies that promote stability, such as prudent fiscal management, effective monetary policy, and crisis preparedness, are essential for maintaining a healthy and prosperous economy. Reducing volatility and uncertainty in the macroeconomy can lead to improved well-being and opportunities for all members of society.

(The writer is an Senior Research Analyst at VeKommunicate)

OPINION COLUMN

Smart Manufacturing

Akriti Kumari

Industry 4.0 in Cement Industry

The fourth industrial revolution, or Industry 4.0, exploits new technologies to create powerful connections between physical and digital systems. A number of manufacturing industries have already implemented 4.0 solutions to good effect. Mining companies, for example, are using data about equipment health to predict potential failures, while aeronautics and automotive companies are using robotics and end-to-end digital twins to improve their design and production processes. Not surprisingly, first adopters in many industries have gained an edge over their competition.

Cement production can also be enhanced by Industry 4.0 in a number of ways. In particular, 4.0 solutions can better manage the enormous energy consumption, rising cost challenges, and overall process complexity that are inherent to the industry. Many cement players know the benefits of 4.0, but few have seen its full power or taken advantage of its full potential. The first movers in this industry will generate substantial value and build a strong competitive lead.

Boston Consulting Group has listed five areas of Industry 4.0 of particular interest to the cement industry.

- The set of recommendations includes analytics-driven predictive maintenance. Predictive maintenance addresses issues before the equipment breaks down, and this requires sensors attached to all critical machines to monitor conditions such as vibration, temperature, and pressure.
- Digital twins allow cement companies to mirror the entire production process through a digital model. The model allows you to simulate how adjusting one setting impacts all other settings. As computers can comprehend far more data than the human brain, this allows for optimization that is not possible with traditional tools through testing various scenarios in a safe and costless environment. With Artificial Intelligence and machine learning, the software will even improve itself along the way in a spiral for continuous optimization.
- Building accurate digital twins requires cooperation between experienced employees from the cement plants and data scientists. Here lies a challenge, as some employees are reluctant to share information.
- Simulating the process in a digital twin also has very beneficial impacts on the next two areas mentioned in the report: Predictive Quality Analysis - The quality analysis can help reduce overspending where producers tend to use costly, high-quality limestone and additives to meet quality targets.

OPINION COLUMN

A self-learning digital twin will, over time, associate all the process input parameters and the raw material characteristics with the quality outcome and thus reduce the overspending. Alternative Fuel Optimization - The energy expenditures that today represent 45% or more of total cement production costs. According to Boston Consulting Group, this could be cut in half by using alternative fuels, which today account for only 17% of the industry's overall fuel use globally.

- The last area of recommendation in the report is The Integrated Control Tower. A digitized cement plant can be run remotely. According to the report, the few plants that do this already are experiencing a reduction of up to 15% in operating costs, significant workforce optimization, lower maintenance costs, and improvements in safety and working conditions. These points that match very well with the early comment about using Industry 4.0 to compensate for the skill gap.

(The writer is an Senior Research Analyst at VeKommunicate)

OPINION COLUMN

Environment Equity

Saloni Goyal

Environment Social Governance Framework

ESG stands for environmental, social, and governance. These are called pillars in ESG frameworks and represent the three main topic areas companies are expected to report. ESG is a framework used by companies to evaluate their level of sustainability and corporate responsibility. ESG aims to capture all the non-financial risks and opportunities inherent to a company's day-to-day activities.

Potential ESG topics		
Environmental	**Social**	**Governance**
• Energy Usage and efficiency • Climate Change Strategy • Waste Reduction • Biodiversity loss • Greenhouse gas emissions • Carbon footprint reduction • Resource Adequacy	• Access and Affordability • Fair pay and living wages • Equal employment opportunity • Employee benefits • Community engagement • Supply chain management • Adhering to labour laws	• Corporate governance • Risk management • Compliance • Ethical business practices • Avoiding conflicts of interest • Accounting integrity and transparency. • Consumer Privacy

ESG in India

The Ministry of Corporate Affairs (MCA) released the Voluntary Guidelines on Corporate Social Responsibility (CSR), which in 2011 became the National Voluntary Guidelines (NVG) on Social, Environmental & Economic Responsibilities of Business. The NVG consisted of nine principles that represented the Long-Term Sustainable Value (LTSV) of Indian companies. LTSV has now been given more importance than the pursuit of financial profits.

In 2012, there was a transition from voluntariness to a regulatory mandate, which was issued by the Securities and Exchange Board of India (SEBI), making it compulsory for the top 100 listed companies based on market capitalisation to release Business Responsibility Reports (BRR) along with their annual company reports. This would inform the stakeholders about adherence to the NVG principles. In 2015, SEBI increased top-listed companies to 500; in FY21, it was further raised to 1000 companies.

In 2017, SEBI created a system by which these companies could voluntarily adopt integrated reporting that would give stakeholders all the essential financial and non-financial information, guaranteeing a transparent mode of communication regarding the company's strategy, governance and performance. Furthermore, in the same year, the SEBI laid down disclosure requirements for issuing and listing green debt securities in a circular.

OPINION COLUMN

According to Environmental and Social Reporting, 87% of the reporting provisions in India dealt with environmental issues, while 35% dealt with social issues and 32% with governance issues. Key subjects included the management of pollution, water, waste and other essential resources. However, this rapid policy change has led to some uncertainty, leading to poor and uncomprehensive reporting by companies. Some companies also started misusing sustainability reporting as a tool to improve public relations, leading to the issue of greenwashing.

Key Drivers of ESG in India

- **Regulatory Support:** The SEBI has played a crucial role in promoting ESG investing by introducing guidelines that require the top 1,000 listed companies to disclose their ESG-related activities. These guidelines enhance transparency and encourage companies to improve their ESG practices.
- **Investor Demand:** Investors in India, including institutional investors, asset management companies, and retail investors, increasingly recognise the potential of ESG investing. The growing awareness of climate change, social issues, and corporate governance scandals drive the demand for sustainable investment options.

(The writer is an Account Executive at VeKommunicate)

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