

Economic Survey 2022

- The Economic Survey of India is an annual document released by the Ministry of Finance, Government of India.
- It contains the most authoritative and updated source of data on India's economy.
- It is a report that the government presents on the state of the economy in the past one year, the key challenges it anticipates, and their possible solutions.
- The Economic Survey document is prepared by the Economics Division of the Department of Economic Affairs (DEA) under the guidance of the Chief Economic Advisor.
- It is usually presented a day before the Union Budget is presented in the Parliament.
- The first Economic Survey in India was presented in the year 1950-51. Up to 1964, it was presented along with the Union Budget. From 1964 onwards, it has been delinked from the Budget.
- Each year, Economic Survey is prepared on the basis of a theme. Economic Survey 2022 comes up with the theme “Agile Approach”.

Key takeaways from the Economic Survey

- The **Indian economy** is estimated to grow by 9.2% in real terms in 2021-22 (as per first advance estimates) subsequent to a contraction of 7.3% in 2020-21.
- The **Gross Domestic Product (GDP)** projected to grow by 8-8.5% in real terms in 2022-23.
- Projection is **comparable with World Bank and Asian Development Bank's latest forecasts of real GDP growth of 8.7% and 7.5% respectively** for 2022-23.
- According to the **International Monetary Fund's latest World Economic Outlook projections**, India's real GDP is projected to grow at 9% in 2021-22 and 2022-23 and at 7.1% in 2023-2024, which would make **India the fastest growing major economy in the world for all 3 years**.
- Combination of **high Foreign Exchange Reserves, sustained Foreign Direct Investment, and rising export earnings** will provide an adequate buffer against possible global liquidity tapering in 2022-23.
- **India's merchandise exports and imports rebounded strongly** and surpassed pre-Covid levels during the current financial year.
- **Net capital flows were higher at USD 65.6 billion in the first half of 2021-22**, on account of continued inflow of foreign investment, revival in net external commercial borrowings, higher banking capital and additional Special Drawing Rights (SDR) allocation.

- As of end-November 2021, India was the fourth largest forex reserves holder in the world after China, Japan and Switzerland.
- The liquidity in the system remained in surplus.
- Repo rate was maintained at 4% in 2021-22.
- Net Non-Performing Advances ratio declined from 6% to 2.2% during the same period.
- Capital to risk-weighted asset ratio of SCBs continued to increase from 13% in 2013-14 to 16.54% at the end of September 2021.
- Wholesale inflation based on Wholesale Price Index (WPI) rose to 12.5% during 2021-22 (April to December). This has been attributed to – Low base in the previous year, Pick-up in economic activity, Sharp increase in international prices of crude oil and other imported inputs, and High freight costs.
- The Index of Industrial Production (IIP) grew at 17.4% during April-November 2021 as compared to (-) 15.3% in April-November 2020.
- Capital expenditure for the Indian railways has increased to Rs. 155,181 crores in 2020-21 from an average annual of Rs. 45,980 crores during 2009-14 and it has been budgeted to further increase to Rs. 215,058 crores in 2021-22 – a five times increase in comparison to the 2014 level.
- India has become the 3rd largest start-up ecosystem in the world after the US and China. Number of new recognized start-ups increased to over 14000 in

2021-22 from 733 in 2016-17. 44 Indian start-ups have achieved unicorn status in 2021 taking the overall tally of unicorns to 83, most of which are in the services sector.

Budget 2022

Basic Concepts and History of Budget

- According to **Article 112 of the Indian Constitution**, the **Union Budget of a year is referred to as the Annual Financial Statement (AFS)**.
- It is to be noted that, the **term Budget is nowhere mentioned in the constitution**.
- It is a **statement of the estimated receipts and expenditure of the Government in a Financial Year** (which begins on 1st April of the current year and ends on 31st March of the following year).
- Overall, the Budget contains: **Estimates of revenue and capital receipts, Ways and means to raise the revenue, Estimates of expenditure, Details of the actual receipts and expenditure of the closing financial year and the reasons for any deficit or surplus in that year, and The economic and financial policy of the coming year, i.e., taxation proposals, prospects of revenue, spending programme and introduction of new schemes/projects.**
- In Parliament, the Budget goes through six stages: **Presentation of Budget, General discussion, Scrutiny by Departmental Committees, Voting on Demands for Grants, Passing an Appropriation Bill and Passing of Finance Bill.**
- The Budget Division of **the Department of Economic Affairs** in the Ministry of Finance is the nodal body responsible for preparing the Budget.

- The first Budget of Independent India was presented in 1947.
- Until 2016, Railway budget was separately presented. From 2016 onwards, the railway budget is merged with the Union Budget.
- Since 2021, the Budget has been paperless.

Theme of the year

- Each year, like the Economic Survey, Budget also comes up with a theme with all policies revolving around it. The theme for the year 2022 is “Fiscal Prudence and business ease”.
- With India entering the Azadi ka Amrit Mahotsav (75th year of independence), the budget also lays down a plan for next 25 years.
- The Production Linked Incentive Scheme being implemented in 14 sectors would add up to 60 lakh new employment opportunities.

Production Linked Incentive Scheme

- The Central Sector Scheme proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain including electronic components and semiconductor packaging.

- Under the scheme, **electronic manufacturing companies will get an incentive of 4 to 6% on incremental sales** (over base year) of goods manufactured in India and covered under target segments, to eligible companies over a period of next 5 years.
- The scheme **invites foreign companies to set units in India**, however, it also aims to encourage local companies to set up or expand existing manufacturing units.
- The Scheme has been approved for sectors such as **automobiles, pharmaceuticals, IT hardware including laptops, mobile phones and telecom equipments, white goods chemical cells, food processing and textiles etc.**
- These are all **sunrise industries in India.**
- **Sunrise industry is a term used for a sector that is just in its infancy but shows promise of a rapid boom.** The industry is typically characterized by high growth rates, high degree of innovation and generally has plenty of public awareness about the sector and investors get attracted to its long-term growth prospects.
- Examples of Sunrise Industry in India are Information Technology, Telecom Sector, Healthcare, Infrastructure Sector, Retail Sector, Food Processing Industries and Fisheries.

- On the other hand Sunrise industry rapid emergence may threaten a competing industry sector that is already in decline. Because of its dim long-term prospects, such an industry is referred to as a sunset industry.

PLI Scheme for Specialty Steel

- Recently, the Union Cabinet approved the Production-Linked Incentive (PLI) scheme (Central Sector Scheme) for manufacturing Speciality Steel (SS) with a budgetary outlay of Rs 6,322 crore over a period of five years from 2023-24.

Speciality Steel

- Speciality Steel is value-added steel, which is made by processing normal finished steel.
- It is done by converting normal finished steel into high value-added steel by way of coating, plating and heat treatment.
- Apart from the automobile sector and specialised capital goods, they can be used in various strategic applications such as defence, space, power etc. SS are categorized in various types such as, coated/plated steel products, high strength/wear resistant steel, specialty rails, alloy steel products and steel wires, electrical steel etc.

- Aim of the scheme is to help India's **SS production reach 42 Million Tonnes (MT) by 2026-27 from 18 MT today.**
- There are five categories of specialty steel which have been chosen in the PLI Scheme: **Coated/plated steel products, High strength/wear resistant steel, Speciality rails, Alloy steel products and steel wires and Electrical steel.**
- There are three slabs of PLI incentives the lowest **being 4% and highest being 12%.**
- **Any company registered in India, engaged in manufacturing of the identified 'specialty steel' grades will be eligible** to participate in the scheme.
- **One Station One Product for each railway station** to further intensify the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) by enabling railway freight movement development.

Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme

- Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme is a **Centrally Sponsored Scheme implemented by Ministry of Food Processing Industries (MFPI).**

- The PMFME Scheme is currently being **implemented in 35 States and Union Territories (UTs)**.
- Recently, it was decided by the Government of India to **merge PM Formalisation of Micro-food processing Enterprises (PMFME) with Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) scheme**.
- The merging of schemes **would help the Self Help Groups (SHGs) who are involved in micro-entrepreneurship activities** will make them financially empowered and help families of SHGs live a dignified life.

Features

One District One Product (ODOP) Approach

- The States **would identify food products for districts keeping in view the existing clusters** and availability of raw material.
- The ODOP could be a **perishable produce based or cereal based or a food item widely produced in an area**. E.g. mango, potato, pickle, millet based products, fisheries, poultry, etc.

Other Focus Areas

- **Waste to wealth products, minor forest products and Aspirational Districts.**

- **Capacity building and research:** Academic and research institutions under MoFPI along with State Level Technical Institutions would be provided support for training of units, product development, appropriate packaging and machinery for micro units.
- **Upgradation of Individual Micro Food Processing Units:** Existing individual micro food processing units desirous of upgrading their units can avail credit-linked capital subsidy at 35% of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit.
- **Seed Capital to SHG:** Initial funding of Rs. 40,000- per Self Help Group (SHG) member would be provided for working capital and purchase of small tools.
- It is to be implemented **over a period of five years from 2020-21 to 2024-25.**
- It is a centrally sponsored scheme with an outlay of Rs. **10,000 crore.**
- The expenditure under the scheme would be shared in **60:40 ratios between Central and State Governments, in 90:10 ratios with North Eastern and Himalayan States, 60:40 ratio with UTs with legislature and 100% by Centre for other UTs.**

Tax on Cryptocurrency

- The budget proposed a 30% tax on income from virtual digital assets, such as cryptocurrencies and nonfungible tokens (NFTs).
- There would be no deduction allowed while computing such income except the cost of acquisition.
- The government has also proposed to issue a Digital Rupee, or Central Bank Digital Currency (CBDC), in the fiscal year 2022-23. The digital currency will be fiat currency, just like physical currency is.

Roll out of 5G technology

- The government would auction telecom spectrum in 2022, which will facilitate private players to roll out 5G services before March 2023.
- Telecom Regulatory Authority of India (TRAI) is working on its recommendations for the spectrum auction and these are to be expected by March.

Features of 5G Technology

Millimeter wave spectrum

- The 5G networks will operate in the millimeter wave spectrum (30-300 GHz) which has the advantage of sending large amounts of data at very high speeds

because the frequency is so high, it experiences little interference from surrounding signals.

Upgraded LTE

- 5G is the latest upgrade in the long-term evolution (LTE) mobile broadband networks.

Internet speed

- In the high-band spectrum of 5G, internet speeds have been tested to be as high as 20 Gbps (gigabits per second) as compared to the maximum internet data speed in 4G recorded at 1 Gbps.
- 5G network speeds should have a peak data rate of 20 Gb/s for the downlink and 10 Gb/s for the uplink.

Bands in 5G

- 5G mainly work in 3 bands, namely low, mid and high frequency spectrum — all of which have their own uses as well as limitations.

Low band spectrum

- It has shown **great promise in terms of coverage and speed of internet and data exchange however the maximum speed is limited to 100 Mbps** (Megabits per second).

Mid-band spectrum

- It offers **higher speeds compared to the low band**, but has limitations in terms of coverage area and penetration of signals.

High-band spectrum

- It has the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength.

Utility of 5G Applications

- Combined with IoT, cloud, big data, AI, and edge computing, 5G could be a critical enabler of the fourth industrial revolution.

Hurdles in Rolling Out 5G Technology

Enabling critical infrastructures

- 5G will **require a fundamental change to the core architecture** of the communication system. The major flaw of data transfer using 5G is that it can't carry data over longer distances. Hence, even 5G technology needs to be augmented to enable infrastructure.

Financial liability on consumers

- For transition from 4G to 5G technology, one **has to upgrade to the latest cellular technology**, thereby creating financial liability on consumers.

Capital Inadequacy

- **Lack of flow of cash and adequate capital with the suitable telecom companies** (like Bharti Airtel and Vodafone Idea) is delaying the 5G spectrum allocation.

For India

- 5G networks could **improve the accessibility of services such as mobile banking and healthcare**, and enable exponential growth in opportunities for unemployed or underemployed people to engage in fulfilling and productive work. For this Government has rolled out enabling policies.

5G Enabling Policy

- India's **National Digital Communications Policy 2018** highlights the importance of 5G when it states that the convergence of a cluster of revolutionary technologies including 5G, the cloud, Internet of Things (IoT) and data analytics, along with a growing start-up community, promise to accelerate and deepen its digital engagement, opening up a new horizon of opportunities.
- It **aims to reach 100% teledensity**, high-speed internet highways and delivery of citizen-centric services electronically.

Tele-density

- Tele-density, which denotes the **number of telephones per 100 populations, is an important indicator of telecom penetration.**
- **Overall tele-density in the country was 88.81 per cent** at the end of November 2019.
- The **rural tele-density was 56.71 per cent while that in urban areas it was 156.82 per cent.**

Global Progress on 5G

- Global telecom companies have already started building 5G networks and rolling it out to their customers in many countries:

- 5G had been deployed in 50 cities in the United States.
- South Korea has rolled out 5G to 85 cities.
- Japan and China have too started 5G mobile service on a trial basis.

6G Technology

- Recently, the government has asked the Centre for Development of Telematics (C-DOT) to begin developing 6G and other futuristic technologies to catch up with the global market in time.
- The next generation telecom technology (6G) is said to be 50 times faster than 5G and is expected to be commercially launched between 2028-2030.
- 6G (sixth-generation wireless) is the successor to 5G cellular technology.
- It will be able to use higher frequencies than 5G networks and provide substantially higher capacity and much lower latency (delay).
- One of the goals of 6G internet will be to support one microsecond-latency communication (delay of one-microsecond in communication).
- This is 1,000 times faster - or 1/1000th the latency - than one millisecond throughput.
- It seeks to utilize the terahertz band of frequency which is currently unutilized.

- Terahertz waves fall between infrared waves and microwaves on the electromagnetic spectrum.
- These waves are extremely tiny and fragile, but there's a huge amount of free spectrum up there that would allow for spectacular data rates.

Significance

More facilitation

- The 6G technology market is expected to facilitate large improvements in imaging, presence technology and location awareness.
- 6G's higher frequencies will enable much faster sampling rates, in addition to providing significantly better throughput and higher data rates.

Advancement in Wireless sensing technology

- The combination of sub-mm waves (e.g., wavelengths smaller than one millimeter) and frequency selectivity to determine relative electromagnetic absorption rates could potentially lead to significant advances in wireless sensing technology.

Emergence of Digital Capabilities

- It will see the **emergence of simple, easy-to-wear-and-carry devices** with a huge set of digital capabilities.
- This will help the paramedics, educators and agro-technicians to jumpstart the village ecosystems with little or limited need for on-site presence of doctors, professors and agro-experts.

Optimising mass public transportation

- For India, such an enabling set of technologies will bring manifold utilisation of scarce rail, air and road networks and make mass transportation far more efficient;
- Artificial Intelligence (AI) and massively parallel computing architectures will help solve transportation and scheduling operations research problems.

Challenges

Maintaining Protection Mechanisms

- The key technical challenges are **energy efficiency, avoiding signal attenuation due to obstructions and water droplets in the air**, and, of course, maintaining end-to-end trust through robust cyber security and data protection mechanisms.

Adoption of New Models

- Need innovations in antenna design, miniaturisation, edge cloud and distributed AI models. In addition, we need to ensure end-to-end security and privacy by design, instead of as an afterthought.

Availability of Semiconductor

- We **don't have semi conducting materials** that can use multi-THz frequencies.
- Getting any kind of range out of those frequencies may require enormous arrays of extremely tiny antennas.

Complex Design for Carrier Wave

- **Water vapor in the atmosphere blocks and reflects THz waves**, so mathematicians will have to design models that allow data to take very complex routes to its destination.

Telecom Regulatory Authority of India (TRAI)

- Telecom Regulatory Authority of India (TRAI) is set up under **section 3 of Telecom Regulatory Authority of India Act, 1997**.

- TRAI was set up in order to have a **suitable environment for the growth of the telecommunications industry in the country and be a part of the global information society.**
- TRAI is composed of a **Chairman, At least 2 full-time members and not more than 2 part-time members** all of them to be **appointed by Central government.**
- The powers of TRAI have been considerably diluted by TRAI (Amendment) Ordinance, 2000.
- Now, **regulations are to be done by TRAI and Telecom Disputes Settlement Appellate Tribunal (TDSAT).** It has got members as TRAI has; Chairman, at least 2 full-time members, and not more than 2 part-time members.

Tax Slabs

- The Union Budget 2022-23 has **kept income tax slabs unchanged** while allowing tax payers an additional two years to update their returns.

Battery-swapping policy

- The **Centre is planning to come out with a battery swapping policy with interoperability** standards for Electric Vehicles (EVs).

- Considering space constraints in urban areas for charging stations at scale, a battery swapping policy will be brought out and interoperability standards will be formulated.
- The private sector will be encouraged to develop sustainable and innovative business models for 'Battery or Energy as a Service'. This will improve efficiency in the EV ecosystem.

Green Bonds

- The Budget announced plans to issue sovereign 'green bonds', a concept catching up globally, to move towards carbon neutrality.
- As part of the government's overall market borrowings in 2022-23, sovereign 'green bonds' will be issued for mobilizing resources for green infrastructure.

Green Bonds

- A green bond is a debt instrument with which capital is being raised to fund 'green' projects, which typically include those relating to renewable energy, clean transportation, sustainable water management etc.
- They typically come with tax incentives such as tax exemptions and tax credits to attract investors.

- First **official Green Bond** was released by the World Bank in 2009. The World Bank is a major issuer of Green Bonds.
- **A bond is a fixed income instrument that represents a loan made by an investor to a borrower** (typically corporate or governmental). Bonds traditionally paid a fixed interest rate (coupon) to investors.
- The **Securities and Exchange Board of India (SEBI)** has put in place disclosure norms for issuance and listing of green bonds.
- The **Green Bonds have higher coupon rates than the corporate government bonds with similar tenure.**
- They **typically have a lower interest rate than the loans offered by the commercial banks.**
- In the first half of 2019, **India became the second-largest Green Bond market globally after China** with \$10.3 billion worth of transactions, as per the Economic Survey 2019-20.
- In October 2019, **India joined the International Platform on Sustainable Finance (IPSF)** to scale up the environment-friendly investments.

Challenges associated with Green Bonds:

- The projects targeted by green bond issuers are debatable. It has been noted that many times that the proceeds of green bonds are being used to fund projects that harm the environment.
- There's a lack of credit ratings or rating guidelines for Green Bonds or Green Projects.
- Green Bonds in India have tenure of 10 years while a typical loan is of minimum 13 years. Furthermore, green projects require more time to drive returns.
- Thus, to sum up, there is a need for standard guidelines for a robust Green Bond market. Strategic public-sector investments may attract private investors and build their confidence in the Green Bond market.

E – passports

- A digital passport with embedded chip and futuristic technology to enhance the convenience of citizens in their overseas travel project will be rolled out in 2022

Disinvestment

- The **disinvestment target** for the Budget 2022 is **65,000 crore**, the lowest in 6 years.

Surety Bond

- In the **Budget 2022-23**, the government has allowed the use of surety insurance bonds as a substitute for bank guarantees in case of government procurement and also for gold imports.
- **Insurance Regulatory and Development Authority of India (IRDAI)** has also released final guidelines to ensure orderly development of surety insurance business in India.
- The IRDAI (Surety Insurance Contracts) Guidelines, 2022 will **come into effect from 1st April, 2022**.

Surety Bond

- A surety bond is a **legally binding contract entered into by three parties—the principal, the obligee, and the surety**.

- The obligee, usually a government entity, requires the principal, typically a business owner or contractor, to obtain a surety bond as a guarantee against future work performance.
- Surety bonds are mainly aimed at infrastructure development, mainly to reduce indirect cost for suppliers and work-contractors thereby diversifying their options and acting as a substitute for bank guarantee.
- Surety bond is provided by the insurance company on behalf of the contractor to the entity which is awarding the project.
- Surety bonds protect the beneficiary against acts or events that impair the underlying obligations of the principal. They guarantee the performance of a variety of obligations, from construction or service contracts to licensing and commercial undertakings.

Issues with Surety Bonds

- Surety bonds, a new concept, are risky and insurance companies in India are yet to achieve expertise in risk assessment in such business.
- Also, there's no clarity on pricing, the recourse available against defaulting contractors and reinsurance options.

Significance

- The move to frame rules for surety contracts will help address the large liquidity and funding requirements of the infrastructure sector.
- It will create a level-playing field for large, mid and small contractors.
- The Surety insurance business will assist in developing an alternative to bank guarantees for construction projects. This shall enable the efficient use of working capital and reduce the requirement of collateral to be provided by construction companies.
- Insurers shall work together with financial institutions to share risk information. Hence, this shall assist in releasing liquidity in infrastructure space without compromising on risk aspects.

Vande Bharat Trains

- The Union Budget has announced the development and manufacture of 400 Vande Bharat trains in the next three years.

Vande Bharat Express

- Vande Bharat Express, also known as Train 18, is an Indian semi-high speed intercity electric multiple unit.

- Designed and built by **Integral Coach Factory, Perambur in Chennai.**
- These trains **operate without a locomotive** and are based on a propulsion system called **distributed traction power technology**, by which **each car of the train set is powered.**
- Under the India government's initiative **Make In India.**
- Train 18 has a **maximum speed of 160kmph**, reducing journey time by 25% to 45%.
- It is **energy-efficient** as its coaches will be **fitted with LED lights.**
- The Vande Bharat coaches incorporate passenger amenities including **onboard Wi-Fi entertainment; GPS based passenger information system, CCTVs, automatic doors in all coaches, rotating chairs and biovacuum type toilets like in aircraft.**
- The current version of the train has **16 coaches with 14 ordinary chair cars and two executive class chair cars.** The train has a passenger **carrying capacity of more than 1,100 people.**
- Currently, two Vande Bharat Expresses are operational: one between New Delhi and Varanasi and the other from New Delhi to Katra.

Expansion of Bharatmala Pariyojana

- The national highways in India would be increased to additional 25,000 km in 2022 – 23.

Bharatmala Pariyojana

- Bharatmala Pariyojana is an **umbrella program for the highways sector** envisaged by the **Ministry of Road Transport and Highways**.
- Under Phase-I of Bharatmala Pariyojana, **implementation of 34,800 km of national highways in 5 years (from 2017 to 2022) has been approved at an estimated outlay of Rs. 5,35,000 crore.**
- **National Highways Authority of India (NHAI)** has mandated the development of about 27,500 km of national highways under Phase-I.
- Phase-II envisages around **48,000 km of road network across India by 2024.**
- With about 52.32 lakh km of road network comprising National Highways, State Highways and other roads, **India has the second largest road network in the world.**

Objectives

- To **optimise the efficiency of freight and passenger movement across the country** by bridging critical infrastructure gaps through effective interventions.

- The effective interventions include the **development of economic corridors; inter corridors and feeder routes, national corridor efficiency improvement, border and international connectivity roads, coastal and port connectivity roads and greenfield expressways.**

- **Economic Corridors:** These **are integrated networks of infrastructure within a geographical area** designed to stimulate economic development.
- **Greenfield Projects:** They **lack constraints imposed by prior work** on the site. Typically, it entails **development on a completely vacant site** and architects start completely from scratch.
- **Brownfield Projects:** They **carry constraints related to the current state of the site and might be contaminated or have existing structures** that architects have to tear down or modify in some way before the project can move forward.
- To **generate a large number of direct and indirect employment opportunities in the construction and infrastructure sector** and also as part of the enhanced economic activity resulting from better road connectivity across the country.
- To connect **550 districts in the country through national highway linkages.**
- **Improvement in the efficiency of existing corridors through the development of Multimodal Logistics Parks and elimination of chokepoint.** Multimodal Logistics Parks are a key policy initiative of the Government of India to

improve the country's logistics sector by lowering overall freight costs, reducing vehicular pollution and congestion, and cutting warehousing costs. A **chokepoint is a single point through which all incoming and outgoing network traffic is funnelled and hence, leads to congestion and traffic.**

- Enhance **focus on improving connectivity in North East** and leveraging synergies with Inland Waterways.
- Emphasis on the **use of scientific and technological planning** for Project Preparation and Asset Monitoring.
- **Satellite mapping of corridors** to identify upgradation requirements.
- **Delegation of powers to expedite project delivery for successful completion of Phase I by 2022.**