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DAILY CURRENT AFFAIRS



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S.NO.	TOPIC
1.	PRODUCTION-LINKED INCENTIVES (PLI) FOR MANUFACTURING SEMICONDUCTORS
2.	INDIA FINANCE REPORT – CAFRAL
3.	PRELIMS POINTERS

PRODUCTION-LINKED INCENTIVES (PLI) FOR MANUFACTURING SEMICONDUCTORS

SOURCE: [THE HINDU](#)

WHY IN NEWS?

The **underutilization of funds allocated for semiconductor manufacturing** through the **Production-Linked Incentive (PLI) scheme** has brought the **government's strategy under scrutiny**. With over **80% of PLI funds for semiconductor manufacturing** remaining unused, questions arise about the efficacy of the substantial financial investment.

PRODUCTION LINKED INCENTIVE (PLI) SCHEME:

➤ **Overview:**

- ✓ The Finance Minister has introduced the Production Linked Incentive (PLI) Schemes across **13 key sectors** as part of the government's economic initiatives.
- ✓ These schemes aim to establish **national manufacturing champions** and provide **employment opportunities for the youth of the country**.

➤ **Aims and Objectives:**

- ✓ **Incremental Sales Incentives:** The primary objective is to **offer incentives to companies** based on **incremental sales from products manufactured within domestic units**.
- ✓ **Attracting Foreign Investment:** The scheme actively **encourages foreign companies** to establish their **manufacturing units in India**, contributing to the country's economic growth.
- ✓ **Promoting Local Manufacturing:** Local companies are **incentivized to either set up new manufacturing units** or expand existing ones, fostering domestic production and economic development.
- ✓ **WTO Compliance:** The **overarching goal is to align India with World Trade Organisation (WTO) commitments**, ensuring **non-discriminatory and neutral treatment** concerning both domestic sales and exports.

Semiconductor Manufacturing in India:

- **India's Initiative for Semiconductor Manufacturing:**
 - ✓ In response to the challenges posed by **import dependency**, India has **initiated efforts to establish semiconductor manufacturing units domestically**, aiming for self-sufficiency in this critical technological domain.
- **Pivotal Role in Modern Electronics:**
 - ✓ Semiconductors and displays serve as the **fundamental building blocks of the modern electronics industry**, powering devices ranging from computers and smartphones to automotive sensors.
- **Geopolitical Significance and Security:**



- ✓ In the current geopolitical landscape, **securing reliable sources of semiconductors is of strategic importance.**
- ✓ These components are **crucial for the security of critical information infrastructure.**
- ✓ Concerns over **potential vulnerabilities, as seen in telecom equipment**, emphasize the need for self-reliance.
- **Global Tensions and Domestic Manufacturing Boost:**
 - ✓ **Escalating tensions between the U.S. and China, particularly over Taiwan**, along with supply chain blockages **due to geopolitical conflicts like Russia-Ukraine**, have **prompted nations, including India, to prioritize and enhance domestic semiconductor manufacturing capabilities.**

India Semiconductor Mission

- ☛ India Semiconductor Mission (ISM) is a **specialized and independent Business Division within the Digital India Corporation.**
- ☛ It aims to build a vibrant semiconductor and display ecosystem to enable India's emergence as a global hub for electronics manufacturing and design.

RECENT CONCERN OVER SEMICONDUCTOR MANUFACTURING IN INDIA:

- **Underutilization of PLI for Semiconductors:**
 - ✓ Funds allocated for semiconductor manufacturing through the PLI scheme are **largely underutilized, raising questions about the effectiveness of the investment.**

- **Lack of Clarity on Achievements and Goals:**
 - ✓ The government's objectives and accomplishments in **spending crores on semiconductor fabrication capabilities lack transparency, requiring a clearer narrative on the intended outcomes.**

- **Challenges in Employment and Value Addition:**

- ✓ Existing schemes **demonstrate limited promise in generating substantial employment and value addition.**
- ✓ Semiconductor manufacturing, **being highly automated**, contributes minimally to employment.

- **Wager on Attracting a Semiconductor Ecosystem:**

- ✓ The central bet on attracting an "ecosystem" to enhance India's electronics manufacturing sector is uncertain.
- ✓ Dependence on **global manufacturing giants** and their willingness to bypass advantages of a distributed supply chain is risky.

- **Emphasis on Semiconductor Design Talent:**

- ✓ Efforts to encourage domestic semiconductor design talent, such as the **design-linked incentive scheme, show promise.**
- ✓ However, a major portion of **capital remains directed at large manufacturing plants** with substantial reliance on imported materials.

- **Limited Commitments from Multinational Chipmakers:**

- ✓ Despite incentives, **multinational chipmakers are hesitant to make substantive commitments.**
- ✓ **Private capital is in flux**, with uncertainties about allocating resources amid technological advancements.

Global semiconductor revenues are set to drop 11.2% in 2023

	Revenue (\$ billion)	Growth (%)
2021	595	26.3
2022	600	0.2
2023	532	-11.2
2024	631	18.5

Figures for 2023 and 2024 are projections.

Chart: howindialives.com • Source: Gartner

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➤ **Need for Tangible Outcomes and Clear Goals:**

- ✓ The outlays for **semiconductor manufacturing should be tied to tangible outcomes.**
- ✓ Clarity is essential on whether the goal is **safeguarding cyber sovereignty, reducing electronics costs for Indian consumers**, or establishing India as a global manufacturing hub.

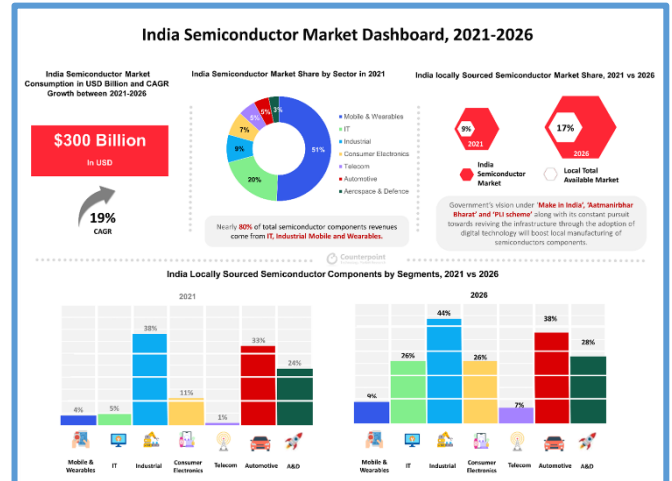
GOVERNMENT INITIATIVES:

➤ **Government's Semiconductor Ecosystem Focus:**

- ✓ The **government is strategically focused on developing the semiconductor ecosystem** to catalyse India's rapidly expanding electronics manufacturing and innovation sector.

➤ **Electronic Goods Production Surge:**

- ✓ Government initiatives and industry efforts propelled a robust growth in domestic electronic goods production.
- ✓ The sector surged from **USD 37 billion in 2015-16 to USD 74.7 billion in 2020-21**, boasting a significant **Compound Annual Growth Rate (CAGR) of 17.9%**.



- ✓ Key schemes like PLI, Electronic Components and Semiconductors Promotion, and **Modified EMC 2.0** played pivotal roles in fostering self-reliance in electronics manufacturing.

➤ **AtmaNirbharta Vision in Electronics and Semiconductors:**

- ✓ The **government's vision of self-reliance (AtmaNirbharta)** in electronics and semiconductors gained momentum with the **approval of the Semicon India program by the Union Cabinet.**
- ✓ The program, with an outlay of **INR 76,000 crore**, **aims to develop the semiconductor and display manufacturing ecosystem in the country.**

➤ **Scheme for Semiconductor Fabs:**

- ✓ Offers fiscal support for setting up semiconductor wafer fabrication facilities with varying percentages of the project cost based on technology nodes.

➤ **Scheme for Display Fabs:**

- ✓ **Provides fiscal support for setting up TFT LCD / AMOLED based display fabrication facilities** with up to 50% of the project cost.

➤ **Scheme for Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor ATMP / OSAT facilities:**

- ✓ Offers fiscal support for **setting up facilities in these domains, providing 30% of the capital expenditure.**

➤ **Design Linked Incentive (DLI) Scheme:**

- ✓ Provides financial incentives and design **infrastructure support for semiconductor design**, covering various stages of development and deployment.
- ✓ Other schemes such as **Chips to Startup (C2S)** and Scheme for **Promotion of Electronic Components and Semiconductors (SPECS)** to support the industry.



WAY FORWARD:

- **Strategic Outcome Alignment:**
 - ✓ Align PLI schemes with **strategic national outcomes**, be it **enhancing cyber sovereignty**, bolstering domestic electronics affordability, or **establishing India as a global electronics manufacturing hub**.
- **Diversified Investment Focus:**
 - ✓ Diversify **capital allocation beyond large manufacturing plants**.
 - ✓ Encourage **investments in semiconductor design**, fostering a comprehensive ecosystem.
- **Enhanced Clarity in Objectives:**
 - ✓ Clearly define and **communicate the specific objectives of PLI schemes**, ensuring that outcomes align with **broader economic, technological, and strategic goals**.
- **Address Raw Material Dependency:**
 - ✓ Develop strategies to **reduce dependence on imported raw and intermediate materials**, enhancing self-sufficiency in the semiconductor production process.
- **Promote Private Capital Engagement:**
 - ✓ Implement **measures to attract private capital by providing assurances and incentives** that align with the **evolving landscape of chip technologies and artificial intelligence**.
- **Constant Policy Adaptation:**
 - ✓ Establish **mechanisms for agile policy adaptation**, taking into account rapid advancements in chip technologies and global supply chain dynamics.
- **Collaboration with Global Giants:**
 - ✓ Foster collaborations with **global manufacturing giants**, **encouraging them to participate in India's semiconductor ecosystem** by leveraging the benefits of PLI schemes.
- **Robust Monitoring and Evaluation:**
 - ✓ Implement **robust monitoring and evaluation frameworks to assess the effectiveness of PLI schemes** and make data-driven adjustments as needed.
- **Long-term Vision:**
 - ✓ Develop a clear, **long-term vision for India's semiconductor industry**, emphasizing sustained growth, innovation, and competitiveness in the global market.



UPSC PYQs

Prelims

Q. With reference to solar power production in India, consider the following statements: (2018)

1. India is the third largest in the world in the manufacture of silicon wafers used in photovoltaic units.
2. The solar power tariffs are determined by the Solar Energy Corporation of India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (d)

Q. Consider, the following statements: (2023)

Statement-I : India accounts for 3.2% of global export of goods.

Statement-II : Many local companies and some foreign companies operating in India have taken advantage of India's 'Production-linked Incentive' scheme.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Ans: (d)



INDIA FINANCE REPORT – CAFRAL

SOURCE: [INDIAN EXPRESS](#)

WHY IN NEWS?

The inaugural India Finance Report by the Centre for Advanced Financial Research and Learning (CAFRAL), affiliated with the Reserve Bank of India, assesses the state of India's non-banking financial companies (NBFCs), or the shadow banking sector. It acknowledges improvements post the 2018 liquidity crisis and Covid-19 pandemic.

KEY FINDINGS OF THE REPORT:

➤ Positive Trends:

- ✓ Post-2018 and pandemic challenges, NBFCs show improvement in capital position, asset quality, and profitability.
- ✓ Capital to risk-weighted assets ratio (CRAR) rises from 22.9% in 2019-20 to 27.6% in 2022-23, surpassing the stipulated 15% norm.
- ✓ Gross and net non-performing asset (NPA) ratios witness a consistent decline.

➤ Emerging Risks:

- ✓ Recent years see a rise in bank financing for NBFCs, raising concerns about systemic contagion and emphasizing the need for preventive measures.
- ✓ The report warns against relying solely on post-2017 ratios for assessing systemic risk, highlighting the importance of considering externalities in decision-making.
- ✓ Systemic risks can accumulate during periods of financial calm, leading to increased risk-taking and potential negative spillovers during crises.

➤ Implications for RBI and Government:

- ✓ The report's findings are crucial given recent sharp shifts in monetary policy, from loose measures during the pandemic to a subsequent contraction in response to rising inflation.
- ✓ The NBFC sector's health is integral to India's economic growth, particularly supporting millions of MSMEs.
- ✓ Regulators must learn from past mistakes to sustain economic stability.

The Centre for Advanced Financial Research and Learning (CAFRAL)

It is an independent body set up by the Reserve Bank of India (RBI) in the backdrop of India's evolving role in the global economy, in the financial services sector and its position in various international fora. CAFRAL seeks to develop into a world class global institution for research and learning in banking and finance.

Non-Banking Financial Company (NBFC):

➤ Definition:

- ✓ A Non-Banking Financial Company (NBFC) is a registered company under the Companies Act, 1956.
- ✓ It engages in various financial activities such as loans, acquisition of securities, leasing, hire-purchase, insurance, and chit business.
- ✓ However, it excludes institutions primarily involved in agriculture, industrial activities, purchase/sale of goods (other than securities), services, and immovable property transactions.

➤ Residuary NBFC:

- ✓ A non-banking institution functioning as a company, focusing on receiving deposits under various schemes or arrangements, falls under the category of a Residuary NBFC.

➤ Key Features:

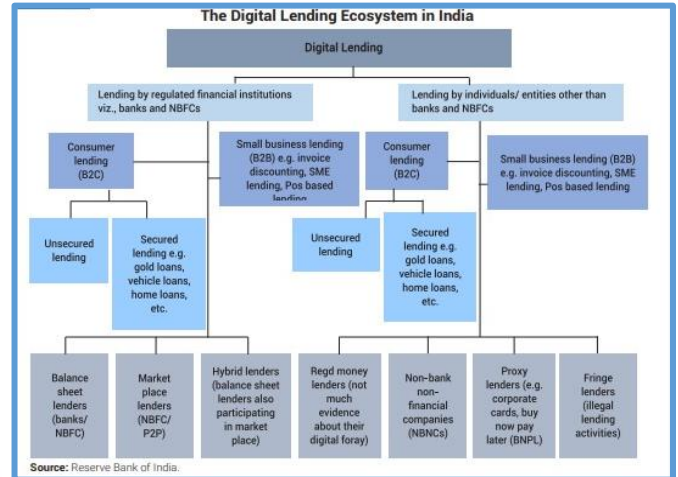
- ✓ **Deposit Restrictions:** NBFCs are prohibited from accepting demand deposits.
- ✓ **Exclusion from Settlement System:** NBFCs are not part of the payment and settlement system and cannot issue self-drawn cheques.



- ✓ **Deposit Insurance:** Unlike banks, the **Deposit Insurance and Credit Guarantee Corporation do not provide deposit insurance facilities to NBFC depositors.**
- ✓ This framework **establishes the unique role of NBFCs in the financial landscape**, outlining their operations, limitations, and distinctions from traditional banking institutions.

DIGITAL LENDING OVERVIEW: TRANSFORMING FINANCE

- **Defining Digital Lending:**
 - ✓ Recent rise characterized by **credit intermediation through digital channels**, leveraging digital technologies across lending processes.
- **Integration into Digital Landscape:**
 - ✓ Part of broader **digital landscape**, involving **FinTech lending** in vertical sectors and horizontal focus areas.
- **Diverse Models and Players:**
 - ✓ Led by **NBFCs initially**, banks join with **Lending Service Providers (LSPs)**.
 - ✓ **Two main forms:** Balance Sheet Lending (BSL) and Marketplace Lending (MPL).
- **Expansion and Players:**
 - ✓ Involvement from FinTech platforms, '**neo banks**,' **Buy Now, Pay Later (BNPL)**, and **P2P lending**, highlighting diverse market participants.




WAY FORWARD:

- **Conclusion and Future Outlook:**
 - ✓ Overall, **NBFC sector strengthens across dimensions**, poised for further improvement.
 - ✓ NBFCs played a **crucial role in credit expansion**;
 - ✓ however, **rising competition from banks and potential global shocks pose challenges**.
 - ✓ Regulatory measures need to balance fostering growth and **ensuring financial stability in the post-COVID era**.



PRELIMS POINTERS:

Topic	Details																					
<p>INDIA SUCCESSFULLY TEST-FIRES 'PRALAY' MISSILE</p> 	<p>Type: Short-range, surface-to-surface ballistic missile (SRBM). Developed by: Defence Research and Development Organisation (DRDO). Range: 150-500 km. Speed: 1 to 6 Mach. Payload capacity: 500-1,000 kg. Purpose: Developed for deployment along the Line of Actual Control (LAC) and Line of Control (LoC).</p> <p>DIFFERENCE BETWEEN CRUISE MISSILE & BALLISTIC MISSILE:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Feature</th> <th style="width: 40%;">Cruise Missile</th> <th style="width: 45%;">Ballistic Missile</th> </tr> </thead> <tbody> <tr> <td>Propulsion</td> <td>Jet engines or propellers for sustained flight</td> <td>Rocket engines for a high, arched trajectory</td> </tr> <tr> <td>Trajectory</td> <td>Low-altitude and guided path for extended flight</td> <td>High-altitude, suborbital trajectory with a peak and descent</td> </tr> <tr> <td>Guidance</td> <td>Precise guidance systems for accurate targeting</td> <td>Limited guidance with pre-determined trajectory</td> </tr> <tr> <td>Targeting</td> <td>Maneuverable and can adjust the course during flight</td> <td>Fixed trajectory with minimal course adjustments</td> </tr> <tr> <td>Range</td> <td>Generally shorter range (hundreds to a few thousand kilometers)</td> <td>Longer range (thousands to intercontinental distances)</td> </tr> <tr> <td>Examples</td> <td>BrahMos, Nirbhay Subsonic Cruise Missile (SSM)</td> <td>Prithvi, Agni, Shourya, Surya</td> </tr> </tbody> </table>	Feature	Cruise Missile	Ballistic Missile	Propulsion	Jet engines or propellers for sustained flight	Rocket engines for a high, arched trajectory	Trajectory	Low-altitude and guided path for extended flight	High-altitude, suborbital trajectory with a peak and descent	Guidance	Precise guidance systems for accurate targeting	Limited guidance with pre-determined trajectory	Targeting	Maneuverable and can adjust the course during flight	Fixed trajectory with minimal course adjustments	Range	Generally shorter range (hundreds to a few thousand kilometers)	Longer range (thousands to intercontinental distances)	Examples	BrahMos, Nirbhay Subsonic Cruise Missile (SSM)	Prithvi, Agni, Shourya, Surya
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<p>FINANCE COMMISSION</p>	<p>WHY IN NEWS? The government has started the process of constitution of the Sixteenth Finance Commission.</p> <ul style="list-style-type: none"> ▪ Constitutional body providing <u>recommendations on the distribution of tax revenues between the Union and the States and amongst the States.</u> ▪ Constituted by the President under Article 280 of the Constitution. ▪ Mandate includes <u>distribution of net proceeds of taxes, principles for grants-in-aid, measures for augmenting state funds, and other matters referred by the President.</u> ▪ Composition: Chairman and four members appointed by the President. 																					
<p>LAW COMMISSION RECOMMENDS E-FIR</p>	<p>WHY IN NEWS? The <u>Law Commission of India recommended that “in cases where the accused is not known, registration of an e-FIR should be allowed for all cognisable offences”.</u></p> <p>Where an accused is known, e-FIRs may be allowed for offenses punishable up to three years under the Indian Penal Code (IPC).</p> <ul style="list-style-type: none"> ▪ e-FIR: Electronic First Information Report. ▪ Recommendation: Allow e-FIR registration for all cognizable offenses where the accused is not known. ▪ Verification with OTP and valid ID like Aadhaar. ▪ Physical signature by the complainant within three days to convert the complaint into an actual FIR. ▪ Differentiates between cognizable and non-cognizable offenses. 																					



CHARGE SHEET:	FIR:	ZERO FIR:
chargesheet is the final report filed towards the end of an investigation	FIR is filed at the 'first' instance' that the police are informed of a cognizable offense (offence for which one can be arrested without a warrant; such as rape, murder, kidnapping).	Zero FIR is an FIR that can be registered by any police station, irrespective of jurisdiction, when it receives a complaint regarding a cognizable offence. No regular FIR number is assigned at this stage. After receiving the Zero FIR, the relevant police station registers a fresh FIR and starts the investigation.

	COGNIZABLE	NON-COGNIZABLE
OFFENCE	Serious crime	Comparatively less serious crime
POLICE ACTION	One can be arrested without a warrant	Arrest after warrant
BAIL	DIFFICULT TO GET A BAIL (not a right to get bail)	Comparatively easy to get bail
EXAMPLE	Rape, murder, kidnapping	Defamation

WORLD METEOROLOGICAL ORGANIZATION (WMO) REPORT

- **Report:** Climate Services Report 2023.
- **Key Findings:** Less than 25% of health ministries globally use climate information to monitor health risks. Heat warning services provided in only half of affected countries. Climate change mitigation can save lives. Insufficient investments in health sector capabilities.
- **WMO:** Specialized agency of the United Nations for meteorology, operational hydrology, and related geophysical sciences. Established in 1950. Headquarters in Geneva, Switzerland.

STUDY ON HYPERTENSION IN INDIA

- ❖ **Study based on National Family Health Survey data.**
- ❖ **Key Findings:** Variation in hypertension prevalence, diagnosis, treatment, and control within Indian states and districts. Prevalence slightly higher in southern states. Men more prone, but women more likely to be diagnosed, treated, and have controlled blood pressure.
- ❖ **WHAT IS HYPERTENSION:** High blood pressure, linked to lifestyle choices and medical conditions. Govt initiatives include IHCI.

STABLE AURORAL ARC



WHY IN NEWS? Indian Astronomical Observatory (IAO) in Ladakh captured stunning images of a rare red-colored aurora known as a Stable Auroral Arc.

- **Rare atmospheric phenomenon** observed during a strong G3-class geomagnetic storm.
- **Indicates heat energy leaking into the upper atmosphere from Earth's ring current system.**
- **Registered globally** during recent geomagnetic storm.
- **Aurora Formation:** Result of charged particles from the sun hitting Earth's atmosphere.
- **Northern lights (aurora borealis) in the Northern Hemisphere and southern lights (aurora australis) in the Southern Hemisphere.**

FIVE-HUNDRED APERTURE SPHERICAL TELESCOPE (FAST)

- WHY IN NEWS?** Using the Five-hundred Aperture Spherical Telescope (FAST), astronomers from China and Australia have recently discovered five new pulsars.
- ❖ **Radio telescope in China's Guizhou Province.**
 - ❖ **World's largest and most sensitive radio telescope.**



- ❖ Diameter: 500 meters.
- ❖ **Scientific Goals:** Detect neutral hydrogen at the edge of the universe, discover pulsars, participate in gravitational wave detection, perform high-resolution radio spectral survey, and more.
- ❖ Uses data system developed at ICRAR and ESO. Pulsars are rapidly rotating neutron stars. Neutron stars form from the core collapse of massive stars.

