

IIT-Bombay, TCS To Build India's First Quantum Diamond Microchip Imager

- This Project aligns with India's **National Quantum Mission (NQM)**
- **About National Quantum Mission (NQM):**
 - **Launch year** - 19th April 2023
 - **Duration** - 2023-24 to 2030-31
 - **Implemented by** - Department of Science and Technology, Ministry of Science and Technology
 - **Total Outlay:** Rs.6003.65 Crore
 - **Aim** - To seed, nurture and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in Quantum Technology (QT)
- **Quantum technology** is a branch of science and engineering focused on the principles of quantum mechanics. Quantum mechanics explores how matter and energy behave on the smallest scale. India is the seventh country to have a dedicated quantum mission after the US, Austria, Finland, France, Canada and China.
- **Objective –**
 - Developing intermediate-scale quantum computers with 50-1000 physical qubits in 8 years in platforms like superconducting and photonic technology
 - Inter-city quantum key distribution over 2000 km as well as multi-node Quantum networks with quantum memories.
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Three Major Initiatives Of The Reserve Bank Of India

- **The Reserve Bank of India (RBI)** has recently launched three significant initiatives **PRAVAAH Portal, Retail Direct Mobile App, and FinTech Repository** to enhance public access, streamline regulatory processes, and support the fintech sector.
 - And also launched a related repository called the **EmTech Repository** meant for **RBI-regulated entities (banks and NBFCs)**.
- **PRAVAAH Portal:**
 - **Description:** An online platform for applying for various regulatory approvals from the RBI.
 - **Importance:** Simplifies and speeds up the approval process by providing a single point of contact.
- **Retail Direct Mobile App:**
 - **Description:** An app for retail investors to access and trade government securities (G-Secs).
 - **Importance:** Enables easy account opening, participation in auctions, and trading in G-Secs.
- **FinTech Repository:**
 - **Description:** A database with information about the Indian fintech sector.
 - **Importance:** Helps in understanding the sector for better regulatory policies and supports fintech companies.
- **EmTech Repository:**
 - **Description:** Contains information on how banks and NBFCs are using new technologies like AI and blockchain.
 - **Importance:** Monitors technology adoption and encourages innovation in the financial sector.
- **Purpose and Impact:**
 - **Enhance Access:** Makes the RBI more accessible.
 - **Streamline Approvals:** Simplifies regulatory approval processes.
 - **Support Transactions:** Eases trading of government securities.
 - **Strengthen Regulation:** Aids in effective policy-making.
 - **Promote Innovation:** Encourages the use of advanced technologies in banking and finance.

Asia-Pacific Employment and Social Outlook 2024 report

➤ The recent report from the International Labour Organization (ILO) focusing on the Asia-Pacific region.

➤ **key points:**

- **Employment Trends:** The Employment to Population Ratio (EPR) in the region saw an improvement, rising to 58.2% in 2023 from 57.4% in 2022. A significant factor contributing to this increase was the growth in employment among women in India.
 - **Demographic Shifts in India:** The report highlights a projected increase in India's old age dependency ratio, expected to rise from 0.10 to 0.22 by the year 2050. This indicates a growing proportion of elderly people relative to the working-age population, which could have implications for social support systems and economic planning.
 - **Productivity Challenges in India:** India faces the challenge of accelerating productivity growth significantly to attain high-income status by 2050. Productivity growth is crucial for sustainable economic development and improving living standards.
 - **Skilled Labor Shortages in Indian Manufacturing:** A notable finding is that approximately 76% of manufacturers in India reported facing shortages of skilled labor. This shortage underscores the importance of investing in education and vocational training to meet the demands of the evolving job market and boost productivity in the manufacturing sector.
- Overall, the report emphasizes the need for targeted policies and investments to address employment dynamics, demographic shifts, and productivity challenges in India and the wider Asia-Pacific region.

Sovereign Bonds

➤ The **10-Year Sovereign Bond Yield** has dropped to a nearly one-year low. This decline is mainly because the RBI recently transferred a record-high dividend payout of Rs 2.11 lakh crore to the government, boosting its financial position. Additionally, the fall in crude oil prices has improved market sentiment, leading to increased interest in buying bonds. As a result, bond prices have gone up, and yields have decreased.

➤ **Sovereign Bond:**

- It's a debt instrument issued by the government.
- It can be denominated in **both foreign and domestic currency**.
- It promises to pay the buyer interest for a certain number of years and repay the face value on maturity.
- Governments use these bonds to meet their expenses, as they're like taking loans from the market.
- Factors affecting bond yield include **creditworthiness, country risk, and exchange rates**.

➤ **Bond Yield:**

- It's the return on investment for a bond.
- **Price and yield have an inverse relationship:** as bond prices go up, yields go down, and vice versa.
- A drop in government bond yields reduces borrowing costs for the entire economy, as these yields serve as benchmarks for corporate borrowing rates.

SEBI Releases Framework For Issue Of Subordinate Units In Privately Placed InvITs

➤ The new norms allow privately placed **Infrastructure Investment Trusts (InvITs)** to issue subordinate units only to the sponsors when acquiring an infrastructure project.

- This move aims to address differences in valuation between the sponsor (seller) and the InvIT (buyer).

➤ **About InvITs:**

- InvITs are investment vehicles similar to mutual funds, allowing investors to invest in infrastructure projects like toll roads, power lines, and pipelines.
- Sponsors, usually infrastructure companies, set up InvITs through SEBI and are recognized as borrowers under the SARFAESI Act 2002.
- Parties involved in InvITs include the trustee, sponsor, investment manager, and project manager.
- InvITs generate income through tolls, rents, interest, or dividends from investments, which are then distributed to investors as taxable earnings.

➤ **Significance of InvITs:**

- **Low ticket size:** Investors can invest small amounts.
- **Liquidity:** InvITs are listed on stock exchanges, allowing investors to exit at any time.
- **Transparency:** Investors are informed about where their money is invested.
- **Low Risk:** InvITs are regulated by SEBI, reducing risk for investors.