

ECONOMY

PRE-CONTEXT

EXCHANGE RATE

THE HINDU, PG.NO: 10, 15.

News: "The impacts of rupee weakening."

News: "RBI announces steps to boost cross-border transactions in rupee."

One of the most important determinants of the supply of a currency in the market is the monetary policy of a country's central bank.

About Exchange Rate:

Evolution:

- **Par Value System till 1971:** Govt. Fixes external value.
- **Pegged Regime 1971-1992:** Rupee was pegged to US dollar.
- **LERMS (1991- 1993):** Partial Convertibility.
- **Floating Exchange Rate since 1993:**
 - India delinked itself from Fixed exchange Rate system & made it **floating exchange rate**.
 - Although exchange rate is **market determined**, **RBI can intervene as stabiliser**.
 - Mr. Manmohan Singh was then Finance Minister.

Types:

- **Nominal Exchange Rate (NER):**
 - Refers to the price of one country's currency in terms of another country's currency. It indicates how much of one currency can be exchanged for another. Eg. 1 USD = 86.5 INR.
- **Real Exchange Rate (RER):**
 - Adjusts the nominal exchange rate for inflation.
 - Indicating how much goods and services can be exchanged between countries after accounting for price differences.
 - It reflects the relative purchasing power of two currencies.
- **Nominal Effective Exchange Rate (REER):**
 - NEER **measures the strength of a country's currency against a weighted average of several other currencies**.
 - **If India's NEER increases**, it means the Indian Rupee has strengthened against the basket of other currencies, **making imports cheaper and exports more expensive**.
 - **Increase in NEER indicates appreciation** of country's currency.
- **Real Effective Exchange Rate (REER):**
 - Values of NEER is **adjusted to inflation**. This provides a more accurate picture of a country's currency competitiveness.
 - **Increase in REER indicates real appreciation** of country's currency.

Convergence and Divergence of NEER and REER graphs:

- **Convergence:**
 - **If the inflation rates of the home country and its trading partners are similar**, then REER and NEER graphs tend to move in tandem, showing convergence.
 - **If exchange rate fluctuations are proportionate to changes in relative price levels**, NEER and REER will align closely, leading to convergence.
- **Divergence:**
 - If the home country experiences **significantly different inflation rates compared to its trading partners**, the REER will diverge from the NEER.
 - Volatile exchange rate movements that are **not matched by corresponding changes in price levels** can cause REER and NEER to diverge.

Factors influencing Exchange Rate:

- **Interest Rates:** The RBI's interest rate decisions (Monetary Policy) significantly influence the INR. Higher rates tend to attract foreign portfolio investment (FPI), strengthening the INR.
- **Inflation:** Persistent inflation in India can erode the INR's value.
- **Economic Growth:** India's robust GDP growth has generally supported the INR, making it attractive for foreign investors.
- **Political Stability:** Relative political stability in India has been conducive to foreign investment.
- **FDI & FPI:** High levels of FDI and FPI inflows have appreciated the INR, while any capital flight can exert downward pressure.
- **Demand for Indian Goods and Services** in international market.
- **Decisions of Central Bank:** under current scenario of falling Rupee, RBI announced following Measures:
 - **Cross-border transactions in rupees.** MoUs signed with Central Bank of UAE, Indonesia, Maldives.
 - **Special Rupee Vostro Accounts** was introduced to encourage greater use of Indian Rupee.
 - **Indian exporters will be able to open accounts in any foreign currency overseas** for settlement of trade transactions.

Note:

- **Appreciation of the Indian Rupee:** An increase in the value of the Indian rupee relative to other foreign currencies.
 - Eg: If the Indian rupee appreciates against the US dollar from ₹75 to ₹70 per USD, making imports cheaper.
- **Depreciation of the Indian Rupee:** A decrease in the value of the Indian rupee relative to other foreign currencies.
 - Eg: If the Indian rupee depreciates against the Euro from ₹80 to ₹85 per EUR, making European goods more expensive for Indian consumers.

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Chart 2: Chart shows the index values for the nominal effective exchange rate (NEER) and the real effective exchange rate (REER)





HEALTH

PRE-CONTEXT

TUBERCULOSIS

THE HINDU, PG.NO: 20.

News: "Long overdue, short-term regimen for TB set to be a game changer."

"India had the highest tuberculosis (TB) burden in 2023."

Tuberculosis:

- **Caused by:** *Mycobacterium tuberculosis* (**Mtb**).
- **Preventive Vaccine:** Bacillus Calmette-Guerin (**BCG**).
- Mtb coevolved with humans for a millennia (1000 years).
- Those with **nutritional deficiencies, diabetes, and a habit of smoking** are at the highest risk of contracting TB
- **Multiple Drug Resistance:** microorganisms like bacteria or viruses, develop resistance to multiple antimicrobial drugs, making infections harder to treat.
 - **Mtb developed its ability to grow in macrophages (white blood cells).**

India and Tuberculosis:

- India contributes to **25% of global TB cases** in 2022.
- TB is **one of the top 10 causes of deaths** in India.
- India has a significant number (**~75, 000**) of **Multi-Drug Resistant TB** in 2022.
- **SDG goal 3** is to end TB by 2030.

National TB Elimination Programme (2017-2025)

- Eliminate TB **by 2025** under **National Health Mission**.
- TB elimination means there should be under **one case of TB for a population of 10 lakh**.
- **Progress in reduction of TB incidence cases:** 280 cases per lakh in 2005 to 190 cases per lakh in 2024 (it was 199 in 2020)–**WHO World TB report 2024**.
- **To reach the target under the programme:** incidence cases of TB must be reduced to 120 by 2025. **Which is not possible by 2025.**

Key components of Programme:

- Early detection and diagnosis using **Rapid TB detection kits**.
- **Nikshay Poshan Yojana:** Direct Benefit Transfer of Rs. 1000 monthly nutritional support to TB patients.
- **Nikshay digital platform** to monitor TB treatment.
- **Preventive Vaccine BCG** for newborns.

About New regimen tackling microbial resistance:

- It is comprised of **four drugs** — **Bedaquiline, Pretomanid, Linezolid and Moxifloxacin**.
- The BPALM regimen is reputed **to cure drug-resistant TB** in just **six months**, with a **high success rate**.

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DISEASES

PRE-CONTEXT

CERVICAL CANCER

THE HINDU, PG.NO: 20.

News: "Costly HPV vaccine needs to be part of national immunisation programme."

About Cervical Cancer:

- Cervical cancer **develops in the cervix, or the wall of the cervix**.
- The **Human Papillomavirus (HPV)** is **responsible for 99.7% of cervical cancers worldwide** and is among the leading causes of cancer in Indian women.
- **The HPV vaccine** is the **most effective way to prevent it**, as it stimulates the immune system to produce anti-bodies that neutralise the virus.
 - The HPV vaccine also protects against mouth, throat, head, and neck cancers caused by the virus.
- **Currently HPV vaccine is not included under National Immunisation Programme.**
- Under the **Universal Immunisation Programme**, the Govt is providing vaccination to **prevent 12 vaccine-preventable diseases i.e.:**
 - Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, Bacillus Calmette-Guérin (BCG), Hepatitis B, Haemophilus Influenza type B (Hib), Pneumococcal Pneumonia, Diarrhoeas due to Rota virus, Japanese Encephalitis in specific regions.
- **U-WIN Portal** represents a major leap forward in India's immunization efforts

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TECHNOLOGY

PRE-CONTEXT

SPADEX

THE HINDU, PG.NO: 1, 8.

News: "ISRO docks two satellites, puts India in elite league."

News: "Gates in the sky."

SpaDeX:

- **ISRO has never docked spacecraft earlier**, this capability will be demonstrated successfully **under SpaDeX mission**.
- **India joins the ranks of USA, Russia, China with this feat.**
 - Docking is a process where two spacecrafts moving at **extremely high speeds** are **aligned** in a precise and joined together.
 - Docking allows spacefaring components to be launched separately and assembled in space to form a larger module.
- Mission was carried out using **Polar Satellite Launch Vehicle (PSLV)**.
 - The rocket carried two satellites called **SDX01, dubbed 'Chaser,' and SDX02, dubbed 'Target.'** Each weighs 220 kg.
 - After launch and orbit insertion, the two satellites **met in low earth orbit, dock, and then undock.**
- Docking technology is an **essential building-block process for country's own space station, Chandrayaan-4 (moon sample), interplanetary missions.**
 - **Bharatiya Antariksha Station:** India's own Space Station by 2035. First module will be launched in 2028.

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EXAMPLES FROM TODAY'S NEWS PAPER

THE HINDU, PG.NO: 8

News: "Great anniversaries of peace initiatives, a role for India."

Perish or Use Common Sense

- *The lighting effects beggared description... It lighted every peak, crevasse and ridge of the nearby mountain range with a clarity and beauty that cannot be described but must be seen to be imagined...."—General T. Farrell.*
- *Stunning imagery of of Death by the light and heat of a thousand suns—Director of the project, J.Robert Oppenheimer.*
- It's about the **80th anniversary** of the **first atomic bomb test over Hiroshima and Nagasaki** less than a month later, killing between 150,000 and 246,000 people in **year 1945**.
- Ten years later, **in 1955, Einstein led nine other scientists to issue an appeal to the leaders of governments to avert nuclear disaster.** Led to formation of **Russell-EinsteinManifesto**, called for:
 - Scientists would assess the dangers posed to the survival of humanity by weapons of mass destruction". One particular phrase from the Manifesto has become lore: **Remember your humanity, and forget the rest.**
- But in the intervening years, **'humanity' has been forgotten, 'the rest' has been pursued relentlessly.** Glimmers of hope for humanity have risen through breakthrough arms control agreements and partial test bans, which have brought the world's arsenal of nuclear weapons down, **but the genie keep escaping from the vat of controls.**

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PYQs: CSE (M).

Essay 2020: Mindful manifesto is the catalyst to a tranquil self.

Essay 2016: Need brings greed, if greed increases it spoils breed

Thank you!