

Current affairs summary for prelims

11 October 2024

Repo rate stability: Implications of RBI's neutral monetary policy

Context: The Monetary Policy Committee (MPC) of Reserve Bank of India (RBI) has kept the repo rate unchanged at 6.5% for the 10th consecutive time, citing inflation control as a priority.

• Governor Shaktikanta Das emphasized a "neutral" monetary policy stance, signaling balanced efforts between managing inflation and supporting growth.

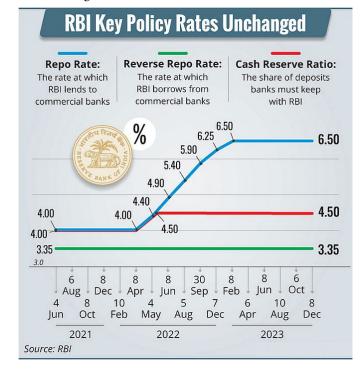
Key projections made by the committee:

- The RBI projects real GDP growth at 7.2% and CPI inflation at 4.5% for 2024-25, unchanged from previous estimates. Favourable agricultural output may ease food inflation, but risks like weather remain.
- The health of banks and NBFCs was highlighted, with concerns raised about aggressive growth strategies and high interest rates in some NBFCs.
- To protect consumers, RBI plans to broaden restrictions on pre-payment penalties and enhance account verification for NEFT and RTGS transactions.
- The RBI remains confident in meeting external financing needs, as FPI inflows have rebounded. Industry analysts suggest this stance could open doors for a possible rate cut, pending global conditions and inflation.

Implications of the RBI's Neutral Stance:

- Interest Rate Adjustments: A neutral position allows for the possibility of an interest rate cut, provided inflation remains under control and economic growth remains stable. This could stimulate investment and consumer spending.
- Inflation Management: The RBI's focus will likely remain on closely monitoring inflation trends. The central bank may take proactive measures to intervene should inflationary pressures re-emerge, ensuring price stability.
- Supporting Economic Growth: By signaling a readiness to stimulate growth, the RBI demonstrates its commitment to fostering economic expansion while maintaining inflation within targeted levels.
- Market Stability: A neutral stance can reassure financial markets by balancing expectations regarding interest rates. This stability can help reduce market volatility and

encourage investor confidence.



The Role of the RBI in Price Stability:

- The central bank is crucial for maintaining price stability and containing inflation in any economy. The inflation rate, assessed over specific periods, indicates how much the general price level has risen.
- Inflation targets vary by country: the U.S. targets 2%, while India's law mandates a 4% target with a comfort zone of 2% to 6%. These benchmarks are based on research indicating the ideal inflation rate for sustainable economic growth.

About Monetary Policy:

- Monetary policy primarily concerns the supply and cost (interest rates) of money within an economy. The RBI's Monetary Policy Committee (MPC) convenes every two months to evaluate monetary conditions and may adjust the repo rate—the interest rate at which the RBI lends to commercial banks—to manage inflation effectively
- The Monetary Policy Committee (MPC), constituted under the amended RBI Act, 1934, is a six-member body tasked with setting the repo rate to control inflation.
- It includes the RBI Governor, Deputy Governor, and government nominees. Decisions are made by majority











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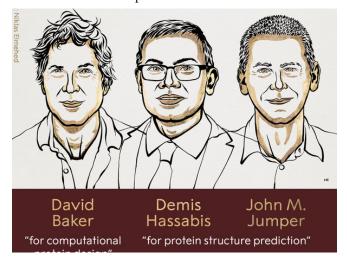
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vote, with the RBI Governor holding a casting vote if tied.

2024 Nobel Prize in Chemistry

Context: The 2024 Nobel Prize in Chemistry has been awarded to three distinguished scientists David Baker, Demis Hassabis, and John M. Jumper for their transformative contributions to the study of proteins.

- David Baker will receive half of the prize for his pioneering work in computational protein design.
- Demis Hassabis and John M. Jumper will share the other half of the prize for their development of AlphaFold, an artificial intelligence model that predicts protein structures with exceptional accuracy.
- Proteins are complex biomolecules consisting of amino acids linked together by peptide bonds. They are essential components of all living organisms, playing critical roles in various cellular processes.



David Baker Contribution:

- David Baker has successfully designed entirely new types of proteins, a feat previously considered impossible.
- He works with the 20 standard amino acids, the building blocks of proteins, to create novel proteins not found in nature.Baker's research group has developed proteins that serve various functions, including pharmaceuticals, vaccines, nanomaterials, and sensors.
- His work highlights the versatility of proteins and their potential in addressing complex medical and technological

By designing proteins with specific functionalities, he opens avenues for targeted drug delivery systems and adaptable vaccines for evolving pathogens.

Demis Hassabis and John Jumper Contribution:

- The work of Demis Hassabis and John Jumper addresses the challenge of predicting protein structures from amino acid sequences. Predicting protein shapes, which determine their functions, has been a significant challenge in biology for decades.
- In 2020, they introduced AlphaFold2, an AI model that revolutionized protein structure prediction. AlphaFold2 enables the prediction of structures for nearly all known 200 million proteins with high accuracy.
- Since its launch, AlphaFold2 has been used by over two million scientists across 190 countries, demonstrating its widespread impact. The model's applications include studying antibiotic resistance and visualizing enzymes that can degrade plastic waste.

Significance of Their Work

Understanding Proteins:

- Proteins are fundamental components of living organisms, playing critical roles in nearly all biological processes.
- The laureates' work elucidates protein structure and function, paving the way for significant scientific advancements.

Impact on Medicine:

- David Baker's computational design enables the creation of proteins specifically tailored to target diseases.
- This could lead to new treatments and therapies, including drug delivery systems or novel therapeutics.

Advancements in AI and Biology:

- Demis Hassabis and John Jumper's AlphaFold introduces a revolutionary approach to predicting protein structures.
- The model provides insights previously unattainable, predicting the structures of nearly all known proteins and enhancing our understanding of protein interactions and functions.

Other Applications:

In drug discovery, accurate protein structures can facilitate the identification of new drug targets and the design of more effective pharmaceuticals.











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In agriculture, engineered proteins may improve crop resilience and yield.

In environmental science, these innovations could lead to proteins that aid in bioremediation and other ecological applications.

India Recognized by WHO for Eliminating Trachoma

Context: India has officially been recognized by the World Health Organization (WHO) for eliminating trachoma as a public health issue. This achievement is significant, as trachoma is one of the leading causes of blindness worldwide, affecting approximately 150 million people globally.

 India was declared free of infective trachoma in 2017, based on the National Trachoma Survey Report (2014-17).

Importance of Recognition:

- WHO's acknowledgment highlights the sustained efforts of the Indian government, international collaboration, and the active involvement of healthcare professionals and communities.
- India joins Nepal, Myanmar, and 19 other countries worldwide that have achieved similar recognition for trachoma elimination.

What is Trachoma?

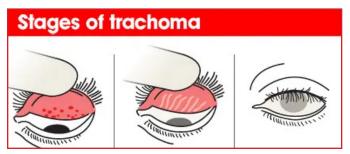
- Trachoma is a chronic, contagious bacterial infection caused by Chlamydia trachomatis. It primarily affects the eyes, leading to inflammation, scarring, and potentially blindness. WHO has termed Trachoma as a neglected tropical disease.
- The World Health Organization (WHO) aims to eliminate trachoma as a public health problem by 2030.

Journey to Elimination:

- India's efforts began in 1963 with the Ministry of Health and Family Welfare launching a trachoma control project, supported by WHO and UNICEF.
- SAFE Strategy: The country adopted the WHOrecommended SAFE strategy, which comprises:
 - » Surgery to treat the blinding stage (trachomatous

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- trichiasis);
- » Antibiotics to clear infection, particularly mass drug administration of the antibiotic azithromycin, which is donated by the manufacturer to elimination programmes, through the International Trachoma Initiative;
- » Facial cleanliness; and
- » Environmental improvement, particularly improving access to water and sanitation.



National Program for Control of Blindness and Visual Impairment (NPCBVI:

- Initiation: Launched in 1976 by the Ministry of Health and Family Welfare in India.
- **Objective:** Aimed to prevent and control blindness and visual impairment across the country.

Decline in Cases:

- In 2005, trachoma was responsible for 4% of all blindness cases in India.
- By 2018, the prevalence dropped to 0.008%.
- Regular monitoring from 2019 to 2024 was conducted to ensure no new cases emerged.

Transmission:

- Direct Contact: Spreads through contact with infected eye, nose, or throat secretions.
- **Indirect Spread:** Can also be transmitted via flies that come into contact with these secretions.

Common Symptoms:

- Itching and irritation of the eyes.
- Discharge from the eyes.
- Sensitivity to light.

Consequences of Trachoma:

Repeated infections can lead to trachomatous trichiasis,











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causing pain, visual impairment, and potential blindness if untreated.

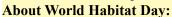
Neglected Tropical Disease Road Map of WHO: The 2021–2030 roadmap targets the prevention, control,

elimination, and eradication of 21 diseases and disease groups by 2030.

Power Packed News

World Habitat Day 2024

- On October 9, 2024, the Ministry of Housing and Urban Affairs (MoHUA) observed World Habitat Day in New Delhi under the theme "Engaging Youth to Create a Better Urban Future."
- The event focused on the significant role of youth in shaping sustainable urban development and highlighted the importance of involving young people in urban planning and decision-making.
- Various government initiatives such as PMAY-U, DAY-NULM, and AMRUT 2.0 were discussed, which engage youth in creating inclusive and resilient urban spaces.
- The event also featured the release of publications and the presentation of awards for best practices in improving living environments.



- World Habitat Day, first observed in 1985, was established by the United Nations General Assembly to be celebrated on the first Monday in October.
- The day emphasizes the universal right to a safe and decent home, urging governments, communities, and individuals to work towards improving housing conditions, fostering secure environments, and creating safer neighborhoods.

Predator Drones

- The Cabinet Committee on Security (CCS) has approved major defence deals, including the indigenous construction of nuclear-powered attack submarines and the acquisition of 31 MQ-9B drones from the US, to enhance India's naval and armed forces capabilities.
- The submarines, expected to be built at the Ship Building Centre in Visakhapatnam with private sector involvement, will strengthen India's naval power in the Indian Ocean Region.
- Additionally, the MQ-9B drones, comprising 16 Sky Guardian and 15 Sea Guardian models, will improve India's intelligence, surveillance, and reconnaissance (ISR) capabilities, while also enabling precision strikes in maritime and mountain domains.
- These drones are to be assembled in India under a Foreign Military Sales (FMS) contract.

About MQ-9B Predator drone:

- The MQ-9B Predator drone is an unmanned aerial vehicle (UAV) that can fly for over 40 hours using satellite communication.
- There are two versions: the MQ-9B SeaGuardian, which is designed for maritime use, and the SkyGuardian, which is meant for land operations.









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National Maritime Heritage Complex (NMHC)

- The Union Cabinet has approved the development of the National Maritime Heritage Complex (NMHC) in Lothal, Gujarat, to showcase India's 4,500-year-old maritime heritage.
- The project will be executed in two phases.
 - » Phase 1A, currently under implementation with over 60% progress, will include a museum featuring six galleries, including one dedicated to the Indian Navy and Coast Guard, and a replica model of Lothal Township.
 - » Phase 1B will add eight more galleries, a lighthouse museum, and a Bagicha complex with amenities for visitors. Phase 2 will introduce Coastal States Pavilions, a hospitality zone, and recreational parks.

About National Maritime Heritage Complex (NMHC):

- The National Maritime Heritage Complex (NMHC) is being constructed in a historic region of the Indus Valley Civilization, under the Ministry of Ports, Shipping, and Waterways.
- Its primary objective is to showcase India's maritime heritage from ancient to modern times through an edutainment approach, incorporating the latest technology.



- Once completed, the NMHC will be the world's largest maritime museum complex and an international tourist destination.
- The NMHC project is expected to generate around 22,000 jobs, including 15,000 direct and 7,000 indirect positions.

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