

Topics - MINDS MAPS included (Daily current affairs 12th th March 2025

- **percarbamide**
- **Polygraph**
- **What Are Toponymous Diseases?**
- **Financial Stability Report 2024**
- **EU Defence Bonds**
- **Reverse Break-Up Fee**
- **Nigerian Cryptocurrency**
- **Agavedzi,**
- **MAINS**



By saurabh Pandey



Target Mains -2025/26 -

Q. - . "Rising debt-to-GDP Ratio will bring economic instability " Examine

(JOIN AAKLAN PLUS TO GET ANSWERS EVALUATED) Download saurabh pandey cse app

**Connect with sir
9057921649**

**send your answer - Saurabh pandey
upsc telegram channel**

HOLI OFFER

**UPSC CSE PRELIMS & MAINS
COURSES AVAILABLE**

PRELIMS + MAINS

**50 PER OFF IN
ALL IAS COURSES**

**Connect with sir
9057921649(only Message)
Download saurabh pandey cse app
visit - saurabhpandeyupsc.com**



Courses for UPSC CSE Prelims 2025

- 1- Complete crash course on upsc cse prelims 2025 (complete static + 2yrs current affairs)**
- 2- PT730 - 2yrs prelims current affairs**
- 3- Test series for upsc cse prelims 2025**
- 4- course on science and tech and General science**
- 5- course on polity and governance**



Download - saurabh pandey cse app

Visit - saurabhpandeyupsc.com and click
on all courses

For Any query message
9057921649

COURSE ON UPSC APEC & AO/EO Exam 2025

**UPSC LEVEL
PREPARATION**

STARTING 28TH feb 2025

For Any query Mesage
-9057921649



**BY SAURABH
PANDEY SIR**



Categories ▾

Search for anythings...

Login

Home

Courses ▾

saurabhpandeyupsc.com Affairs Pointers ▾

YouTube Channel

All Courses

⚡ Important Updates:

Current Affairs 14th February 2025

Current Affairs 13th February 2025

Current Affairs 12th

Popular Courses

For any query - message 9057921649

Prelims Module **course on**
CURRENT AFFAIRS BOTH
FOR PRELIMS AND MAINS 2025

Includes

- The Hindu Newspaper subjectwise coverage
- Yojana magazine
- Down to earth
- PIB
- Physics.org
- Mains gs
- Prelims Practice set

PRAHAR BATCH

BY SAURABH PANDEY SIR

PRAHAR Batch : Advance Current Affairs Course...

Admin

▶ Start Learning

PRELIMS 10 SERIES

Prelims Module

UPSC CSE PRELIMS 2025 TEST SERIES

10 FULL LENGTH TESTS

Attempt High Quality Qs Starting - 2nd FEB

BY SAURABH PANDEY SIR

Super 10 Series – Ten Full Length Tests For UPSC...

Admin

▶ Start Learning

Prelims Module **REVISION BATCH**

Includes

- SPECTRUM BOOK**
- ANCIENT INDIA - OLD NCERT**
- Introduction of Indian Arts NCERT**

TARGET 18+ Qs

BY SAURABH PANDEY SIR

History Revision Batch FOR UPSC CSE PRELIMS...

Admin

▶ Start Learning

Prelims Module **2 YEARS PRELIMS CURRENT AFFAIRS**

2YRS CURRENT AFFAIRS COURSE

2YRS Prelims current affairs

Focus on Newspapers, down to earth, PIB and all important current Practice sets

BY SAURABH PANDEY SIR

Last year 50+ qts from sessions

Download - saurabh pandey cse app

PT370 Course On 2 Years Prelims Current Affairs

Admin

▶ Start Learning

New, greener electrochemical process turns urine into plant fuel

The process, described in *Nature Catalysis*, proposes to convert urea, a nitrogen-rich compound in urine, into a crystalline peroxide derivative called percarbamide. Thus, it strikes two targets at once: enabling the treatment of urine in urban wastewater and transforming it into a useful resource

Sanjukta Mondal

In the 17th century, a German alchemist named Hennig Brand was on a quest to find the “philosopher’s stone,” a mysterious object that could turn any ordinary metal into gold. When he realised the golden colour of urine, he believed it contained tiny particles of the precious metal.

Brand then collected urine from himself, his family, and beer drinkers at his local pub and began distilling it in the hope of finding gold at the end. There was no gold, alas, but the silver lining was that Brand discovered the element phosphorus.

In fact, some call urine “liquid gold” because it is loaded with elements that plants desire. The waste product is packed with phosphorus, potassium, and nitrogen in the form of urea, the “Big Three” nutrients that fuel plant growth and form the backbone of commercial fertilizers.

Two birds, one stone

A new electrochemical technique published in the journal *Nature Catalysis* now proposes to separate urea from urine in its solid form via a greener, less energy-consuming process. This method converts urea, a nitrogen-rich compound in urine, into a crystalline peroxide derivative called percarbamide.

Thus, it strikes two targets at once: enabling the treatment of urine in urban wastewater and transforming it into a useful resource.

Humans obtain nitrogen from food, convert it into urea, and excrete it through urine. Since urea is rich in nitrogen, it has the potential to be a natural fertilizer. In theory, returning the nutrients to the soil could complete the nitrogen cycle, but scientists currently lack efficient methods to extract urea directly from urine, leaving a crucial gap in this cycle, Xinjian Shi, a researcher at Henan University, China, and the first author of the new study, said.

“Our team’s research fills this gap.”

Pee-cycling to close the loop

An adult produces around 450-680 litres of urine, researcher Björn Vinnerås estimated in a 2002 study. The substance is 95% water, yet the annual output also contains around 4 kg of nitrogen and 0.3 kg of phosphorus, enough to grow wheat for one loaf of bread every day for a whole year.

If it’s so valuable, why flush it down the toilet? The answer is that urine is a complex system, and many of its components, especially salts, interfere



A farmer sprinkles urea on a crop of finger millet on the outskirts of Bengaluru. AP

with processes that can extract urea alone from wastewater, Shi said. The team’s study claims to have jumped this barrier.

Urea is made up of nitrogen, oxygen, and hydrogen and is prone to forming hydrogen bonds with other molecules, including urea itself. When these bonds form, the compound’s physical and chemical properties tend to change. This tendency turned out to be a game-changer in the separation process.

For example, when urea forms hydrogen bonds with hydrogen peroxide, it forms percarbamide, a white, crystalline solid that can be precipitated out from urine with high purity.

Percarbamide is known for its ability to steadily release active oxygen, making it a valuable candidate for processes that need to supply oxygen for other chemical reactions. Another key trait of this substance is its ability to accelerate the recovery of urea from urine.

With this insight, the researchers designed an in-situ electrochemical technique that uses graphitic carbon-based catalysts to convert urea in urine into percarbamide. Achieving almost 100% purity, the team used this process to effectively extract percarbamide from both human and animal urine.

While the result was promising, the true focus of the researchers was something else.

A eureka moment

At first, the researchers focused on one problem: keeping hydrogen peroxide stable in liquid form at higher concentrations. They began exploring

Percarbamide is known for its ability to steadily release active oxygen, making it a valuable candidate for processes that need to supply oxygen for other chemical reactions. Another key trait of this substance is its ability to accelerate the recovery of urea from urine

whether it could be solidified directly within a solution with a compatible material. Urea seemed like a promising option – but commercially made urea is quite expensive.

“Then, we suddenly thought, if we could use it within the urine system, it would not only achieve the original goal but also address the issues of urine treatment and nitrogen cycling. Wouldn’t that be a win-win?” Shi asked.

With this insight, the researchers designed an activated graphitic carbon catalyst. Graphite is a soft crystal made of carbon atoms. Activated graphitic carbon is a porous form of graphite subsequently modified to further increase its surface area, making it more reactive.

In this case, it was engineered to enhance two chemical reactions, or pathways, that produce solid percarbamide.

In pathway I, urea reacts directly with hydrogen peroxide in the presence of a catalyst that facilitates interactions between the two molecules. In pathway II, urea binds to a hydroperoxy ($^{\bullet}\text{OOH}$) intermediate, a highly reactive and short-lived molecule. Then it gains

hydrogen ions (H^+) and triggers a reaction to form percarbamide in the presence of a catalyst that enhances hydrogen bonding.

The activated graphitic carbon catalyst was suitable for both pathways.

Waste is golden?

After several rounds of trial and error, the researchers found they could maximise percarbamide production by holding the concentration of urea between 15% and 38%. They also found that maintaining temperatures just above freezing at a slightly acidic pH of around 4 works best for the process.

According to the researchers, the pure percarbamide extracted from this new process combines the best of both worlds: the nitrogen-rich benefits of urea and the oxidative power of hydrogen peroxide, unlocking new possibilities for sustainable applications.

“When the solid product is collected and used as fertilizer, nitrogen is slowly released, while also promoting root respiration and facilitating crop growth,” Shi said. “This process fully addresses the missing link in the nitrogen cycle that exists in human society.”

The team has also expressed excitement about bringing together resource recovery and recycling with wastewater treatment in the future. They believe this innovative approach can change how we think about and use waste.

(Sanjukta Mondal is a chemist-turned-science-writer with experience in writing popular science articles and scripts for STEM YouTube channels. sanjuktamondal.sm@gmail.com)

THE GIST

Urine is known as ‘liquid gold’. It is packed with phosphorus, potassium, and nitrogen in the form of urea, the ‘Big Three’ nutrients that fuel plant growth and form the backbone of commercial fertilizers

An adult produces 450-680 litres of urine, which is 95% water, yet the annual output also contains around 4 kg of nitrogen and 0.3 kg of phosphorus, enough to grow wheat for one loaf of bread every day for a whole year

Researchers found they could maximise percarbamide production by holding the concentration of urea between 15% and 38%. ‘When the solid product is used as fertilizer, nitrogen is released slowly, it also promotes root respiration and crop growth’



Topic → percarbamide



- **Urine is known as ‘liquid gold. It is packed with phosphorus, potassium, and nitrogen in the form of urea, the ‘Big Three’ nutrients that fuel plant growth and form the backbone of commercial fertilizers**
- **An adult produces 450-680 litres of urine. which is 95% water, yet the annual output also contains around 4 kg of nitrogen and 0.3 kg of phosphorus, enough to grow wheat for one loaf of bread every day for a whole year**
- **Researchers found they could maximise percarbamide production by holding the concentration of urea between 15% and 38%.**
- **‘When the solid product is used as fertilizer, nitrogen is released slowly, it also promotes root respiration and crop growth**

- **when urea forms hydrogen bonds with hydrogen peroxide, it forms percarbamide, a white, crystalline solid that can be precipitated out from urine with high purity.**
- **Percabamide is known for its ability to steadily release active oxygen, making it a valuable candidate for processes that need to supply oxygen for other chemical reactions.**
- **Another key trait of this substance is its ability to accelerate the recovery of urea from urine.**

- **To take advantage of this property, the researchers developed an in-situ electrochemical technique that uses graphitic carbon-based catalysts to convert urea in urine into percarbamide.**
- **Achieving almost 100% purity, the team used this process to effectively extract percarbamide from both human and animal urine.**
- **Graphite is a soft crystal made of carbon atoms. Activated graphitic carbon is a porous form of graphite subsequently modified to further increase its surface area, making it more reactive.**

Lie detectors: reading your vitals

Q

Q: How does a lie detector work?

A: A polygraph, also called a lie-detector test, is generally used

during interrogation by police. The instrument works by recording physiological functions such as blood pressure, heartbeat, respiration, and perspiration.

A pneumograph tube is fastened around the person's chest, and a blood-pressure-pulse cuff is strapped around the arm. The psychogalvanic skin reflex, an electro-dermal response, and the flow of current between different parts of the body are also measured. Sensitive electrodes are used to pick up the impulses, which are recorded on a moving graph paper. The parameters are recorded when a suspect answers questions put to them by an operator. The data is then used as the basis for deciding whether the person is lying. When a person lies, the graph deviates from the 'normal' shape in one or more of the body functions. Such changes were believed to occur due to the emotional response to telling a lie.

There is consensus among scientists today that polygraphs



A person undertakes an early version of the polygraph test.
US FBI

are ineffective, unreliable, and easily overcome. The modern polygraph was first constructed in 1921 by John Larson, a medical student at the University of California, along with a police officer. His instrument was capable of continuously recording blood pressure, pulse, and respiration. While the device has been in use since 1924, it has not been accepted as proof of truth-telling in courtrooms.

- The Hindu Bureau

For feedback and suggestions

for 'Science', please write to
science@thehindu.co.in
with the subject 'Daily page'

Topic - Polygraph



Definition: A polygraph, commonly known as a lie-detector test, is primarily used by police during interrogations.



Functionality: It records physiological functions such as blood pressure, heartbeat, respiration, and perspiration to assess truthfulness.



Measurement Tools: The psychogalvanic skin reflex, an electrodermal response, and the flow of current between different parts of the body are also measured. Sensitive electrodes are used to pick up the impulses, which are recorded on a moving graph paper



Data Interpretation: The recorded data is analyzed to determine if a suspect is lying, based on deviations from normal physiological responses.



Scientific Consensus: Current scientific opinion holds that polygraphs are ineffective, unreliable, and can be easily manipulated.



Historical Context: The modern polygraph was developed in 1921 by John Larson and a police officer, and has been in use since 1924.



Legal Status: Despite its long history, polygraph results are not accepted as definitive proof of truthfulness in court.



Summary: The polygraph, a lie-detector test used in police interrogations, measures physiological responses but is deemed unreliable and not admissible in court.

What's in a (disease's) name?



Toponymous diseases may derive their name from towns, rivers, islands, forests, mountains, valleys, countries, continents, and even trenches. Examples of such diseases include the Spanish flu, Delhi boil, Madura foot, and West Nile virus.

These names often lead to considerable misinformation, stigma, and racial prejudice. They can harm science by politicising it and tarnish entire countries or regions and their populations for no fault of theirs, especially when the origin of these diseases is unclear. For example, the influenza pandemic of 1918-1920 is sometimes called the Spanish flu even though it did not originate in Spain. The story goes that Spain was one of the major European countries to remain neutral during World War I. Unlike the other countries involved in the war as part of the Allies or Central Powers, where censors suppressed news of the flu to avoid affecting morale, the Spanish media freely reported on it in detail. Thus, this pandemic, which affected 500 million people worldwide and resulted in more than 20 million deaths, was named due to misinformation.

Renaming diseases

Pushed by experts, and concerned about the above-mentioned issues, the World Health Organization (WHO) in 2015 mandated that this trend be avoided. It instead directed scientists to move towards providing names based on scientific characteristics rather than geography. This is why the next year, physicians sought to rename the fetal disease caused by the Zika virus to congenital Zika syndrome.

The name Zika virus comes from the Zika forest in Uganda, where scientists first isolated the virus from a rhesus monkey in 1947 while researching yellow fever; Zika is the name of the forest in the Luganda language. The name congenital Zika syndrome was proposed by the



Dr. Kabir Sardana

Director, Professor and head, Department of Dermatology, Dr Ram Manohar Lohia Hospital, Delhi

Naming diseases after places often leads to misinformation, stigma, and racial prejudice

WHO team which confirmed that the virus causes damage beyond microcephaly, the first fetal condition to be linked to it.

More recently, the WHO began using mpox as a synonym for monkey pox. This followed reports of racist and stigmatising language being used against certain communities and regions, both online and offline, because of the name monkey pox.

The latest issue

However, the trend of misleading and inappropriate naming still continues. In January, dermatologists from India and 13 other countries objected to the region-specific nomenclature given to a novel species of fungus – *Trichophyton (T.) indotineae* – that causes widespread and hard-to-treat skin infections and is resistant to most anti-fungal medicines. The term *indotineae* has pejorative connotations. It was Japanese dermatologists who had spotted the fungus in patients from India and Nepal and proposed in 2020 that this fungus should be considered a new species and named *Trichophyton indotineae*. It is important to note that the origin of the fungus is not clearly known even now and that the fungus has been reported from more than 40 countries.

The *Trichophyton indotineae* fungus causes a ubiquitous skin problem, commonly known as ring worm, and is resistant to the first-line oral drug terbinafine. The resistance gene was discovered by the Dermatology Department at Dr. Ram Manohar Lohia Hospital and simultaneously by the Postgraduate Institute of Medical Education and Research, Chandigarh.

In an article published in the *Indian Journal of Dermatology, Venereology and Leprology* titled “‘Trichophyton indotineae’ is an inaccurate and pejorative term”, experts say that the name of the fungus is prejudicial and ignores the recommendations of the WHO and the American Society of Microbiology, among others.

The WHO notes that assigning names to new diseases and, on exception, to existing diseases is its responsibility under the International Classification of Diseases and the WHO Family of International Classifications through a consultative process which includes WHO member states. Considerations for the recommendations include rationale, scientific appropriateness, extent of current usage, pronounceability in different languages, absence of geographical or zoological references, and the ease of retrieval of historical scientific information. The current case of naming the fungus *indotineae* is a travesty of the WHO mandate and adds no value to either treating the disorder or finding a cause for the resistance.

The WHO also renames diseases or debunks researchers if they have disturbing legacies. The disease Reiter's Syndrome was named after the German physician, Hans Reiter, who was the first to describe the clinical triad of arthritis, urethritis, and conjunctivitis in 1916. However, problems arose after World War II, when the physician's association with Nazi ideology and his involvement in unethical medical experiments was discovered. The syndrome is now known as reactive arthritis.

The need of the hour

The need of the hour is for the WHO and scientists across the world to focus on finding the causes of diseases and pool together resources to find ways of preventing and curtailing them using precision in language and descriptions. If the outbreak of SARS-CoV-2 has taught us anything, it is that we are a global community whose actions and choices have consequences for others. We should strive for unity, be sensitive to others, and seek out opportunities where we can help and support one another. Microbes defy borders, but stereotypes only divide people.

Topic → What Are Toponymous Diseases?

Toponymous diseases are illnesses named after geographical locations. These names often indicate where the disease was first identified or where it is prevalent. However, the implications can be far-reaching and problematic.

Geographical Origin: Reflects the place of identification.

Cultural Perception: Carry historical and cultural weight.

Potential Misleading: Names can result in stigma and misinformation.

The Origins of Toponymous Names

The origins of these names often stem from historical events, cultural perceptions, and political climates.

Historical Context: Names like the Spanish Flu illustrate how a name can mislead.

Cultural Influence: Societal views often shape the narrative around a disease.

Examples of Toponymous Diseases:

Spanish Flu

Delhi Boil

Madura Foot

West Nile Virus

The Impact of Misleading Names

Misinformation and stigma are inherent in the naming of these diseases.

Case Study: The Spanish Flu:

Infected approximately 500 million people globally.

Resulted in over 20 million deaths.

Stigma disproportionately affected Spain due to the name.

WHO's Response to Naming Issues

In 2015, the World Health Organization (WHO) mandated that disease names should be based on scientific characteristics rather than geographical locations.

Zika Virus: Renamed to congenital Zika syndrome.

Mpox: Shifted from monkeypox to reduce stigma.

The Latest Controversies

While the WHO makes strides, problems persist.

Case of Trichophyton indotineae: Dermatologists raise concerns over pejorative connotations of the name, disregarding WHO recommendations.

Implications of Pejorative Naming: Such names perpetuate stigma against affected populations.

The Role of the WHO in Disease Naming

The WHO has established guidelines emphasizing scientific appropriateness.

Historical Context: Consideration of associations with negative ideologies, such as the renaming of Reiter's Syndrome to reactive arthritis.

The Need for Change

A call for unity and understanding in disease naming is essential.

Urgency for Change: The WHO and global scientists must prioritize accurate descriptors for diseases.

COVID-19 Insights: The pandemic demonstrated that we are interconnected, and our actions have global ramifications.

Moving Forward Together

Unity in Diversity: Recognizing that microbes do not acknowledge borders, we must combat stereotypes and biases.

Advocating for Sensitivity: It's crucial to promote names that reflect scientific understanding rather than geographical stigma.

Is rising consumer credit cause for concern?

A recent report by the RBI highlights the shift towards healthy and prime borrowers in the economy. However, the fact that there is a significant amount of borrowing being done for the purpose of consumption is a cause for concern, signalling macroeconomic weaknesses in the economy.

ECONOMIC NOTES

Rahul Menon

The release of the Financial Stability Report (FSR) 2024 by the Reserve Bank of India (RBI) has called attention to the question of household finances and consumption loans. The stock of household debt has shown a gradual increase, rising from 36.6% of GDP in June 2021 to 41% in March 2024. According to the FSR, it has risen to 42.9% in June 2024. Even though household debt in India is lesser than most emerging market economies, the rise in household debt to GDP ratio is of concern.

Debt is largely taken to build up holdings of assets. However, the stock of household assets has fallen from 110.4% of GDP in June 2021 to 108.3% by March 2024. A reduction in assets and an increase in debt indicates that a greater proportion of borrowing is being used for consumption. Even though the RBI highlights the shift towards healthy and prime borrowers in the economy, the fact that there is a significant amount of borrowing being done for the purpose of consumption is a cause for concern, which might indicate macroeconomic weakness of the economy.

Healthy borrowing and borrowers?

Even though household debt has increased significantly, the RBI highlights several points pointing towards the health of the Indian economy. For one, the RBI presents data to indicate that rising borrowing is being driven by an increase in the number of borrowers rather than rising indebtedness. Secondly, the proportion of sub-prime borrowers has been reducing, with almost two-thirds of debt belonging to prime borrowers and those with above prime credit quality. Rising per-capita debt amounts is witnessed only for super-prime borrowers, indicating that only highly-rated borrowers are undertaking larger levels of debt, mainly using it for asset creation.

Borrowing by individual consumers has been an important source of credit growth since the pandemic. The RBI did introduce measures to curb this growth, leading to a slowdown in credit growth since September 2022. The slowdown has seen a shift towards healthier borrowers, with sub-prime borrowing seeing a relative reduction. This can be seen as a net positive outcome, indicating healthy credit growth focused on asset creation by worthy borrowers, and an increase in borrowing without an increase in average indebtedness.

On increasing consumption

However, there are some worries. The share of loans taken for consumption purposes has increased over time. Households are taking on credit largely for consumption purposes and not to accumulate assets such as houses or vehicles, or to invest in education. The increase in borrowings by prime and super prime borrowers hides the fact that much of borrowing for consumption purposes is being done by households with lower levels of income.

While 64% of loans taken on by super-prime borrowers are for asset creation, nearly half of the loans taken on by sub-prime borrowers are for consumption purposes. Households earning less than five lakh have largely taken on unsecured loans, such as credit card debt, for consumption purposes while richer households largely take on



debt for purposes of purchasing housing. Amongst forms of debt, personal and credit card debt have shown a gradual increase in delinquencies in September 2024 relative to September 2023, indicating greater stress for lower-income households. The RBI outlines the dangers emanating from financial stress for lower-income households. Around half of all borrowers with credit card debt or personal loans also have housing or vehicle loans. A default in any category leads to all loans of the same borrower being classified as non-performing loans for the lending institution. Thus, if a borrower defaults on credit card debt or a personal loan, the housing loan will also be classified as a non-performing asset. Rising stresses in unsecured loans can spell weaknesses for higher value loans as well. The RBI is keen to assert that the loan make-up is gradually shifting towards more prime borrowers, with sub-prime borrowers reducing. This may be the case, but the overhang of consumer debt implies that macroeconomic problems might arise.

The impact of debt on the multiplier

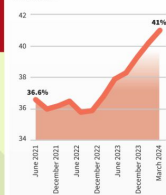
The rise in borrowing for consumption specifically among households with lower levels of income is something that

requires due attention. What factors have driven this increase? Has it come about because households have faced greater income insecurity since the pandemic, and are hence borrowing through the medium of credit cards and unsecured loans to tide over income and consumption shortfalls? Or is it because financial innovations have allowed for households to undertake larger borrowings on the back of financial instruments like credit cards? The former indicates a weak macroeconomy, while the latter carries with it uncomfortable questions, such as the role of financial innovation in leading to the development of fragility and stress by exposing lower-income households to greater debt, pushing them towards financial marginalisation.

Regardless of the factors leading to an increase in this category of loans, the fact that the share of consumption loans has been rising is not a healthy outcome, as it indicates a relative reduction in the number of assets being created even as households become more indebted. Increasing household debt – especially for poorer households – implies a reduction in the power of the income multiplier. The multiplier, which indicates how much output increases for a given

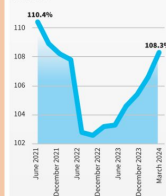
Financial liabilities (% of GDP)

The stock of household debt has shown a gradual increase, rising from 36.6% in June 2021 to 41% in March 2024



Financial assets (% of GDP)

The stock of household assets has fallen from 110.4% of GDP in June 2021 to 108.3% by March 2024



• Borrowing by individual consumers has been an important source of credit growth since the pandemic. The RBI did introduce measures to curb this growth, leading to a slowdown in credit growth

• The share of loans taken for consumption purposes has increased over time. Households are taking on credit largely for consumption purposes and not to accumulate assets

increase in investment, is greater for lower income households, since a greater proportion of their incomes is translated into consumption of goods. Richer households will have a smaller multiplier, since most of their immediate needs are met, and a greater proportion of their income goes into savings.

However, if lower-income households are saddled with debt, some proportion of their income will go into servicing their debt, leading to lesser spending and hence a lower multiplier. An economy with greater levels of household debt, especially from poorer households, might show lower growth for the same amount of investment. In this case, it remains to be seen how much impact macroeconomic policy moves such as the reduction in income tax rates would have, if households are largely indebted. There might be certain indicators that the borrowing structure is healthy and shifting towards super-prime borrowers, but policy will have to remain awake to the possible sources of fragility engendered by the increase in consumption loans and the proliferation of unsecured forms of consumer credit.

Rahul Menon is Associate Professor in the Jindal School of Government and Public Policy at O.P.J.S. Global University for a much on

THE GIST

▼ The RBI presents data to indicate that rising borrowing is being driven by an increase in the number of borrowers rather than rising indebtedness. Secondly, the proportion of sub-prime borrowers has been reducing.

▼ Rising stresses in unsecured loans can spell weaknesses for higher-value loans.

▼ The rise in borrowing for consumption specifically among households with lower levels of income is something that requires due attention.

Understanding the Financial Stability Report 2024: Unpacking

Household Debt Trends

Overview of Household Debt in India

Household debt has become a topic of intense scrutiny, particularly as it has shown a gradual increase over the past few years.

Current Debt Statistics

As of March 2024, household debt has climbed to 41% of GDP, with projections indicating it will reach 42.9% by June 2024. This marks a significant rise from 36.6% in June 2021.

Implications: While such statistics may cause concern, they must be contextualized within the broader economic landscape.

Historical Context: The increase in household debt is a reflection of changing borrowing behaviors and economic conditions

Comparison with Emerging Markets

Interestingly, India's household debt remains lower than many emerging market economies. However, the rising debt-to-GDP ratio raises eyebrows, prompting a closer examination of underlying factors.

Global Perspective: In comparison to countries like Brazil and South Africa, India's debt levels are relatively modest.

Caution Needed: The increasing debt levels warrant vigilance as they could lead to potential financial instability.

The Shift in Household Finances

So, what's driving this increase in household debt? A significant portion of borrowing is now being used for consumption rather than asset accumulation.

Increase in Consumption Loans



The FSR indicates that a growing share of loans is being taken out for consumption purposes. This shift is concerning, as it suggests households are relying more on credit for their day-to-day needs rather than investing in long-term assets.

Trends: Increased spending on necessities and luxuries alike is shifting the focus from savings to immediate gratification.

Risks: This trend can potentially lead to financial instability if not managed properly.

Impact on Asset Holdings

The stock of household assets has actually decreased from 110.4% of GDP in June 2021 to 108.3% by March 2024. This decline in assets, coupled with rising debt, paints a worrying picture of financial health.

Implications for Families: Decreasing assets combined with increasing debt can strain household finances, making it challenging to maintain a stable economic footing.

Long-term Considerations: Families may find themselves in a precarious position if this trend continues.

The Health of Borrowers

Despite the rising debt levels, the RBI points out some positive trends regarding the health of borrowers.

Rise of Prime Borrowers

The data shows that the increase in borrowing is largely driven by a growing number of prime borrowers. This is a good sign, as it indicates that more individuals with strong credit profiles are entering the borrowing market.

Creditworthiness: A larger pool of prime borrowers suggests a healthier lending environment.

Economic Impact: This can potentially stabilize the financial system as more reliable borrowers contribute to the economic landscape.

The Role of Super-Prime Borrowers

Interestingly, the rising per-capita debt amounts are primarily seen among super-prime borrowers, who are using their loans mainly for asset creation. This suggests a healthier borrowing landscape overall.

Investment Focus: Super-prime borrowers are more likely to invest in assets rather than consumption, which can lead to wealth accumulation.

Broader Economic Benefits: Their borrowing can stimulate economic growth through increased investment in productive ventures

The Consequences of Rising Debt

However, not all is rosy. The increase in consumption loans raises concerns about financial stress, particularly for lower-income households.



Financial Stress on Lower-Income Households

A significant portion of loans taken by lower-income households is for consumption, with many relying on unsecured loans like credit cards. This trend can lead to a cycle of debt that's hard to escape.

Vulnerability: Lower-income households are at greater risk of financial distress due to their reliance on unsecured debt.

Long-term Effects: Continuous borrowing can create an unsustainable financial situation.

The Cycle of Debt

If a borrower defaults on a credit card or personal loan, it can trigger a domino effect, classifying all their loans as non-performing assets. This precarious situation can be detrimental to many families.

Impact of Defaults: Defaults can lead to severe credit score penalties, further complicating financial recovery.

Systemic Risks: As more households fall into this cycle, it can pose risks to the broader financial system

The Economic Implications

The implications of rising household debt extend beyond individual borrowers and can impact the economy as a whole.

The Income Multiplier Effect

The income multiplier, which measures how much output increases with investment, is particularly significant for lower-income households. However, as these households become more indebted, their ability to spend diminishes, leading to a lower multiplier effect.

Economic Growth Impact: When lower-income households are burdened by debt, their spending capacity shrinks, potentially stunting economic growth.

Multiplier Dynamics: A decreased multiplier effect can result in slower economic recovery post-recession or economic downturns.

Macroeconomic Policy Considerations



Policymakers need to be aware of these dynamics. While there are signs of healthier borrowing patterns, the increase in consumption loans and unsecured credit could pose risks to economic stability.

Policy Interventions: Targeted measures may be necessary to support vulnerable households while encouraging responsible borrowing practices.

Long-term Stability: Sustainable economic growth requires a balanced approach to borrowing and debt management

Conclusion

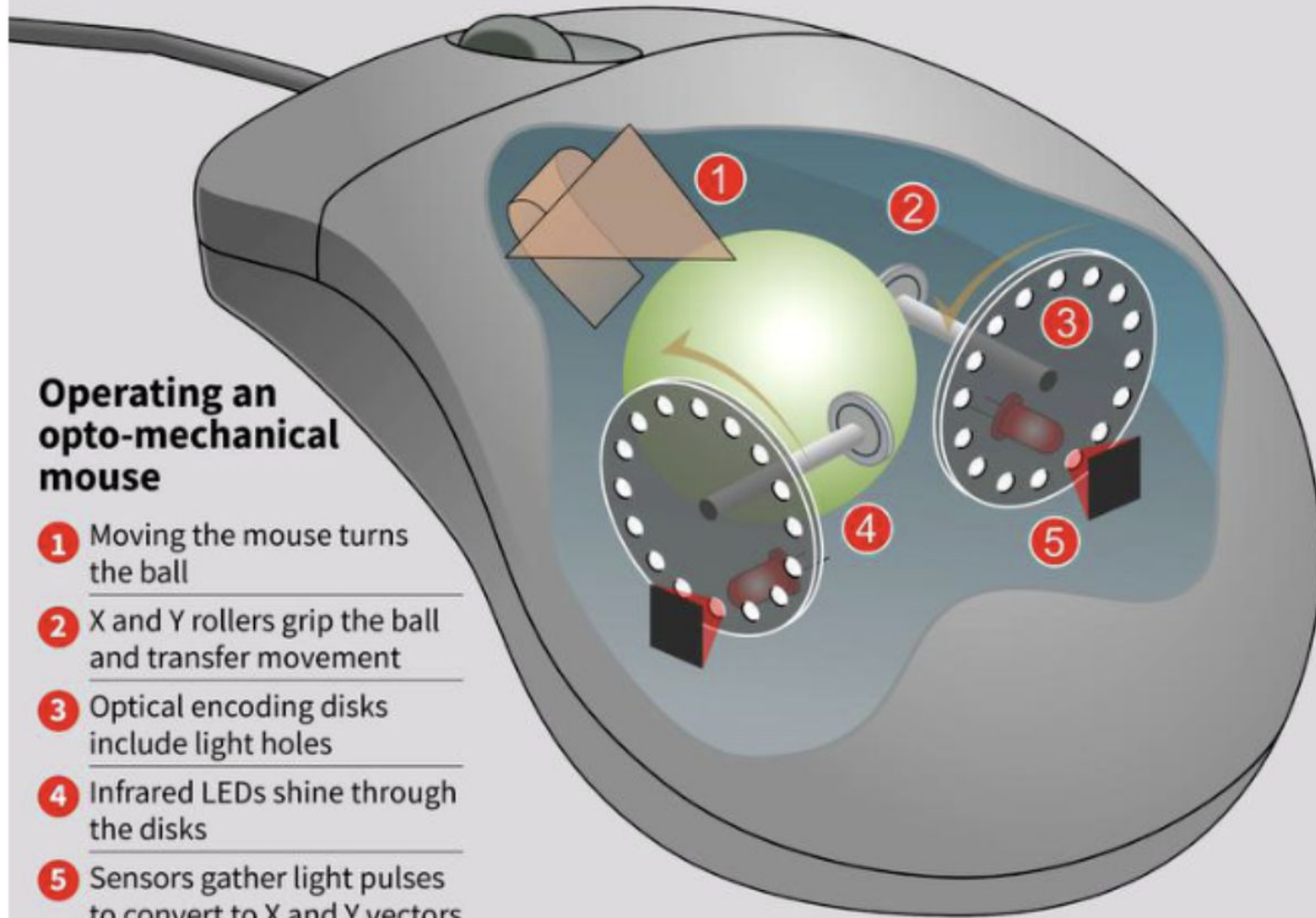
In conclusion, while the FSR 2024 presents a mixed bag of insights regarding household debt in India, the rising trend of consumption loans, particularly among lower-income households, is a cause for concern. It's essential for both borrowers and policymakers to navigate this landscape carefully to ensure financial stability and economic growth.

Call to Action: Stakeholders must work together to create solutions that promote responsible borrowing and protect vulnerable households.

Future Outlook: Continuous monitoring and proactive measures will be crucial in mitigating the risks associated with rising household debt

Operating an opto-mechanical mouse

- 1 Moving the mouse turns the ball
- 2 X and Y rollers grip the ball and transfer movement
- 3 Optical encoding disks include light holes
- 4 Infrared LEDs shine through the disks
- 5 Sensors gather light pulses to convert to X and Y vectors



Dawn of euro defence bonds?



Smart choice. Joint borrowing could be the cheaper path to funding Europe's defence spending. REUTERS

Mike Dolan
LONDON

The European Union's latest joint borrowing plan is likely just a fraction of what will be needed to defend the continent, causing some to ask whether the dawn of defence bonds will be the next big expansion of EU-wide borrowing.

For global investors seeking to rebalance their investment portfolios beyond an increasingly isolationist United States, development of a liquid AAA-rated supranational sovereign debt pool in Europe is now intriguing.

Further development of joint EU borrowing beyond the novel post-pandemic "Next Generation" recovery funds would push the size of this pool far beyond 1 trillion euros.

European leaders last week backed plans to spend more on defence and stand by Ukraine in a world upended by President Donald Trump's reshaping of U.S. military and trade alliances. But the proposed 150 billion euros of jointly borrowed EU loans seemed shy of estimates for what would be needed in common funding.

"Von der Leyen's 150 billion euros in loans are a first step but unlikely to be enough," said Carsten Nickel, deputy research director at advisory firm Teneo, referring to European Commission President Ursula von der Leyen.

Mr. Nickel reckons parallel loosening of euro budget rules to allow greater defence spending would only get the continent so far, as military spending would still be competing with other domestic priorities. What's more, Eastern European countries might balk at having to shoulder greater defence responsibilities to protect the whole bloc solely due to their proximity to Russia. They might therefore demand joint funding to share the burden. Joint borrowing could also be the cheaper path.

Nuclear umbrella

Intriguingly, Mr. Nickel also connects the pressure for shared EU defence spending with France's proposal last week to provide a "nuclear umbrella" for EU security.

"French nuclear protection would likely come at a financial and political cost for its beneficiaries, especially Germany," he wrote. "This could hand (Emmanuel) Macron the opportunity to demand joint EU borrowing in return, at the very least for military purposes."

This move could also provide the new German government the cover it needs to cast aside any remaining objections to joint borrowing. And if the urgency displayed in Berlin last week to up its own defence budget is any indication, another sizeable expansion of joint EU bonds may well be in the works.

"Since everyone would be on the hook to repay the debt, it could also reduce countries free-riding on the defence capabilities of rapidly ramping up peers like Poland," it said.

What's more, European debt piles, on aggregate, are far lower than those in the United States and Japan, so the AAA-rating for EU defence bonds may look more secure.

The expansion of EU joint borrowing could offer solace to nervy global investors, even as the military imperatives driving it keep many on edge. And if another round of debt ceiling wrangling stateside sees the U.S. sovereign rating under renewed pressure, alternatives may look even more attractive.

(The author is a columnist for Reuters)



SAURABH PANDEY

CSE

CONSULTANT & COACH

FROM RAGS TO RICHES

The Future of EU Defence Bonds: A New Era of Joint Borrowing?



Introduction

The European Union (EU) is at a pivotal juncture, contemplating a substantial shift in its financial strategies through the introduction of joint borrowing for defense purposes. With global geopolitics evolving, and the United States adopting a more isolationist stance, discussions around the establishment of EU defence bonds are intensifying.

Key Points:

- 1. The funds aim to support military enhancements amid a backdrop of changing alliances, particularly influenced by the previous U.S. administration.**
- 2. Eastern European nations express concerns about bearing disproportionate defence burdens, given their geographical proximity to potential threats.**



The potential for EU defence bonds to garner investor interest is significant.

Investment Appeal: A stable and secure pool of debt could attract global investors looking to rebalance portfolios away from traditional markets.

Comparison with U.S. Debt: European debt levels are lower than those of the U.S. and Japan, which may enhance the perceived security of EU defence bonds.

Why Japan firms must get used to reverse break-up fees

Reuters

TOKYO/NEW YORK

Japanese suitors face a heightened chance of U.S. targets balking in hefty termination fees to protect against a deal collapsing due to regulatory or political reasons, following Nippon Steel's stranded \$14.9 billion bid for U.S. Steel.

A reputation for reliability has long given Japanese firms almost a bye when so-called reverse break-up fees are broached in M&A talks, yet an increasingly protectionist U.S. has left deals at the mercy of national security and fluid trade policy.

Nippon Steel is challenging the U.S. decision, taken under the administration of President Joe Biden, to block its purchase of U.S.

Steel citing security concerns. If it fails, it has to pay U.S. Steel \$565 million as previously agreed to cover costs incurred by the latter throughout the acquisition attempt.

That prospect will do little to dampen Japanese interest in their biggest target nation yet the increased chance of outside forces scuppering deals has meant reverse break-up fees are looming larger in negotiations, said experts.

The risk of Japanese suitors being unable to close a deal has long been seen as far lower than for companies from many other nations. Even so, U.S. boardrooms are now likely to point to the Nippon Steel deal and demand "protection" in transactions, said U.S. law firm Skadden



Broken trust: Reverse break-up fees were almost non-existent in deals with Japanese suitors. REUTERS

partner Kenton King.

"I think what's going to happen for a while is you will see more reverse termination fees. You'll see them at levels that aren't

crazy, not 10% levels, but manageable levels that aren't too scary to people," Mr. King told Reuters.

Reverse break-up fees were once almost non-ex-

istent in deals involving Japanese suitors to the extent that Western targets were even advised against negotiating them higher, lawyers said.

They now feature in one in 20 domestic and cross-border deals involving listed Japanese firms, said Managing Director Toshi Kojima at DC Advisory.

"Once extremely rare, they are occasionally seen these days, but the vast majority of Japanese boards typically do not approve them," Mr. Kojima said. "Culturally it still doesn't fly."

Median reverse break-up fees worldwide over the past two years have been 4% to 5% of the target's enterprise value, including debt, but are generally lower for Japanese firms, bankers and lawyers said.

Taking on risk

Japanese merger-and-acquisition deals in the U.S. totalled \$54.5 billion last

year, up 35% from the year earlier, showed data from LSEG. Of deals overseas, the U.S. accounted for 53% of targets, the data showed. Over 60% of large deals involving public U.S. companies reviewed by investment bank Houlihan Lokey in a 2023 study contained a reverse break-up fee provision, versus 57% the year prior.

"As a seller, when you see deals like that (Nippon Steel's) being blocked, you're going to be even more insistent on a break fee and buyers taking that risk," said Nick Wall, partner at law firm A&O Shearman in Tokyo. "If you can't get your boards to agree to take on that risk, the deals may fall through."

For suitors of U.S. assets, reverse break-up fees

are increasingly sought due to possible hurdles presented by the Committee on Foreign Investment in the U.S. which screens deals for national security risk. Given U.S. President Donald Trump's focus on protecting American industry, CFIUS reviews are likely to become stricter, said Michihiro Nishi, partner at Clifford Chance.

"The Japanese companies that are serial acquirers are accustomed to a world where they don't present any special regulatory or political risks in the U.S.," said Noah Carr, M&A partner at Freshfields in Tokyo. "The risk profile and track record historically put downward pressure on the break-up fee. Now we're going to see upward pressure."

Key Aspects of Reverse Break-Up Fee


 **Definition:** A reverse break-up fee is a financial penalty paid by the buyer to the seller if a transaction fails due to the buyer's actions.

 **Purpose:** It serves as a deterrent for the buyer, motivating them to complete the deal and safeguarding the seller from losses.

 **Common Triggers:** The fee is triggered if the buyer fails to secure financing, obtain regulatory approvals, or meet other deal conditions.

 **Risk Mitigation:** It protects the seller from potential financial harm if the buyer cannot fulfill their obligations.

 **Transaction Context:** Typically included in acquisition agreements to ensure buyer accountability.

 **Regulatory Impact:** The fee can be influenced by the need for antitrust clearance and other regulatory requirements.

 **Timeliness:** The buyer's failure to adhere to timelines can also activate the reverse break-up fee.

Summary: A reverse break-up fee is a penalty for buyers that incentivizes deal completion and protects sellers from losses due to buyer-related failures.



The government's regulatory push is being bogged down by scepticism and widespread fraud. REUTERS

Nigeria moves to tame the largest cryptocurrency market in Africa

Agence France-Presse
LAGOS

Nigerian authorities are warily moving to regulate Africa's largest cryptocurrency market in long-delayed efforts to create legal certainty in a field still fraught with fraud and volatility.

For years, regulators and government officials have viewed cryptocurrencies and other digital assets with suspicion despite their popularity in the country.

Nigeria ranked second globally after India in 2023 and 2024 on a crypto adoption index compiled by Chainalysis, a global crypto research firm.

Over the past year, a more regulated sector has slowly started to take shape, even as fraud remains a concern for police.

The Director-General of the country's Securities and Exchange Commission (SEC), Enomoti-mi Agama, had confirmed last year that the regulator was pushing ahead with efforts to create clarity around the use of digital assets.

That month, the SEC announced that it had granted "Approval-in-Principle" to two exchanges to begin operations. The first licensed companies – Busha Digital Limited and Quidax Technologies Limited – have since launched.

"We believe this regulatory move is a positive start that will benefit the market in the long run by building trust and stability," Buchi Okoro, co-founder and chief executive of Quidax, said.

"The SEC approval sent a clear signal to potential crypto investors, emphasising their focus on customer protection."

However, the government's regulatory push is being bogged down by scepticism and widespread fraud and investment scams, with many grifters in play.

In December, Nigeria's Economic and Financial Crimes Commission (EFCC) said it arrested 792 suspects – including scores of foreigners – in a single operation in the affluent Victoria Island area of Lagos "for their alleged involvement in cryptocurrency investment fraud and romance scams."

The previous month, the SEC issued an advisory against Marino FX Limited, which it said had falsely claimed to be registered by the commission as a cryptocurrency exchange. It was not the first time the SEC had published such a notice.

Beyond approving the exchanges, Nigeria's parliament is considering an investment and securities bill that, if passed into law, would establish a regulatory framework for digital currencies.



Topic → Nigerian Cryptocurrency Market Regulation



Overview

🇳🇬 Nigerian authorities are taking steps to regulate the cryptocurrency market to ensure legal certainty and combat issues like fraud and volatility.

📈 Nigeria ranks second globally in crypto adoption for 2023 and 2024, just after India, as reported by Chainalysis.

🏛️ The SEC has given "Approval-in-Principle" to two exchanges: Busha Digital Limited and Quidax Technologies Limited.

Regulatory Efforts

🔒 The aim of these regulatory efforts is to build trust and stability in the market,

Legislative Actions

📜 Nigeria's parliament is considering an investment and securities Bill to create a regulatory framework for digital currencies.

Wrath of the sea



Eroded away: People visit a cemetery in Avegadzi, Ghana, where buried remains were exhumed due to coastal erosion. Stronger tidal waves, made worse by climate change, are chewing inland at an alarming rate, say residents who are seeking sea barriers for safety. AP

Mapping

- Pieces of this coastal Ghana community disappear into the sea when heavy waves batter the shore — sweeping away houses and land, threatening to unearth bodies buried in cemeteries and devastating parts of Agavedzi, where generations of families have built homes and lives.



- Dogs develop obesity due to similar environmental influences as people. In a genome-wide association study of Labrador retrievers, researchers have identified an obesity-related gene – **DENND1B** – that may also influence obesity in humans.

ENVIRONMENT IN NEWS



Types of River Dolphins

When it comes to river dolphins, there are two main types: facultative and obligate river dolphins. Let's dive into what makes each of them unique.

Facultative River Dolphins

Facultative river dolphins can thrive in both marine and freshwater environments. In India, the Irrawaddy dolphin is a prime example. Found around Chilka Lake, where an estimated 155 of these dolphins reside, they have become a major tourist attraction. You can also find them off the Sunderbans, adding to the region's biodiversity.

Irrawaddy Dolphins

These dolphins are known for their rounded foreheads and lack of beak, making them quite distinct. They prefer shallow waters and are often seen in groups, which adds to their charm.

Tucuxi and Yangtze Dolphins

The smaller tucuxi is found in the Amazon and Orinoco rivers, while the Yangtze finless porpoise, about 1 meter long, is another fascinating species. Sadly, the Yangtze river dolphin is presumed extinct, having last been spotted in 2007.

Obligate River Dolphins

Obligate river dolphins, on the other hand, are exclusively found in freshwater bodies. The Ganges river dolphin is a prime example, with a widespread habitat in the Ganges and Brahmaputra rivers.

Ganges River Dolphins

These dolphins are not just fascinating; they are also crucial to the ecosystem. Their presence indicates a healthy river environment, but their numbers are dwindling.

Indus River Dolphins

Closely related to the Ganges dolphin, the Indus river dolphin is the state aquatic animal of Punjab. Unfortunately, the recent study could only locate three of these dolphins, highlighting their precarious existence. With only about 1,800 surviving in the Indus in Pakistan, their future is uncertain.

Unique Features of River Dolphins

Echolocation and Navigation

One of the most remarkable features of river dolphins is their echolocation ability. They have a prominent, fatty mass on their foreheads called the melon, which acts as a lens to focus sound. This is crucial for navigation and feeding in the muddy waters they inhabit.



Physical Characteristics

Interestingly, river dolphins have poor eyesight. Their eyes are barely a centimeter across, with a thick cornea and no lens. They rely heavily on echolocation, emitting distinctive clicks to sense their surroundings. In fact, experiments have shown that Indus river dolphins can detect a 4 mm ball bearing suspended on a nylon thread!

Threats to River Dolphins

Despite their fascinating adaptations, river dolphins face numerous threats. Human activities pose significant dangers to their survival.

Human Impact and Conservation

The use of dolphin oil in traditional remedies, overfishing, and chemical pollutants are just a few of the challenges they face. Additionally, they often get caught in fishing nets as unwanted bycatch. It's crucial that we foster greater public awareness of these remarkable creatures and advocate for their conservation.

Conclusion

The recent findings on river dolphin populations in India serve as a wake-up call. With their numbers critically low, it's essential that we take action to protect these incredible animals. By raising awareness and supporting conservation efforts, we can help ensure that future generations will also have the chance to experience the joy of spotting a river dolphin.

HOLI OFFER

**UPSC CSE PRELIMS & MAINS
COURSES AVAILABLE**

PRELIMS +MAINS

**50 PER OFF IN
ALL IAS COURSES**

**Connect with sir
9057921649(only Message)
Download saurabh pandey cse app
visit - saurabhpandeyupsc.com**



CRASH COURSE FOR UPSC CSE PRELIMS 2025

BATCH -2

COMPLETE COVERAGE

- PT730 ->2yrs Advance current affairs.
- Agriculture for GS
- International relations
- Basic to Advance topics- sci-tech, geography and environment
- Introduction to indian art-NCERT
- CLASS XII- BIO NCERT.
- Mapping (static and current)
- Polity . Economy

**TARGET 120
PLUS IN UPSC
CSE PRELIMS
2025**



Download saurabh pandey cse app

**complete coverage for
upsc cse prelims 2025**

**Only Rs
4300/-**

**visit saurabhpandeyupsc.com and
click on all courses**

PT - 730 COURSE IS LAUNCHED FOR UPSC CSE PRELIMS 2025

**TARGET UPSC CSE PRELIMS
2025**

Connect with sir 90579 21649

**PT730 - COURSE ON 2 YEARS
PRELIMS CURRENT AFFAIRS**

- **2YRS Prelims current affairs**
- **Focus on Newspapers ,
down to earth PIB and all
imp sources**
- **Practice sets**



**BY SAURABH
PANDEY SIR**

**2YRS
CURRENT
AFFAIRS
COURSE**

**Last year 50 + qs
from sessions**

Download - saurabh pandey cse app

**For any query msg
9057921649**





Google Play

Games

Apps

Movies

Books

Kids



Saurabh Pandey CSE

Saurabh Pandey CSE

4.8★

77 reviews

1K+

Downloads

3+

Rated for 3+

Install



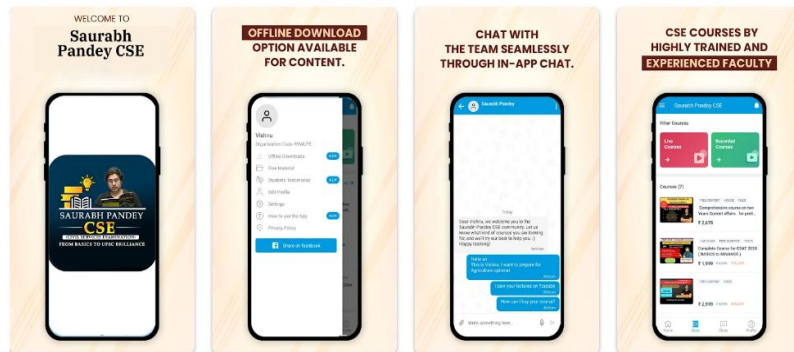
Share



Add to wishlist



This app is available for your device



App support

PDF Download → <https://t.me/gesreporter>



THE HINDU Analysis By saurabh sir for upsc
1 882 subscribers

Pinned Message
The hindu session is live 🔥🔥🔥

<https://youtu.be/JQC9g4tXVI?si=8L4HsagHQ2TVDEIQ>

YouTube
30th & 29th September 2024 | The Hindu Editorial & News Analysis | Daily current affairs | S pandey
#thehinduanalysisbysaurabhpandey #dailycurrentaffairs #thehinduanalysis #thehinduanalysisbysaurabhpandey #Saurabhpandeyupsc
Session covers the hind...

BY Saurabh Pandey sir For upsc aspirants

THE HINDU ANALYSIS
30th & 29th September-2024
saurabh pandey

Why Tropical Storm John unique
Why Flood in Nepal?

Saurabh pandey UPSC
<https://youtu.be/JQC9g4tXVI?si=8L4HsagHQ2...>
The hindu session is live 🔥🔥🔥 176 11:37 AM

THE HINDU Analysis By saurabh sir for upsc pinned "The hindu session is live 🔥🔥🔥"

sp sir 29th and...24 the hindu.pdf
5.8 MB · 164 12:20 PM

Broadcast

Courses for UPSC CSE Prelims 2025

- 1- Complete crash course on upsc cse prelims 2025 (complete static + 2yrs current affairs)**
- 2- PT730 - 2yrs prelims current affairs**
- 3- Test series for upsc cse prelims 2025**
- 4- course on science and tech and General science**
- 5- course on polity and governance**



Download - saurabh pandey cse app

**Visit - saurabhpandeyupsc.com and click
on all courses**

**For Any query message
9057921649**

COURSE ON UPSC APEC & AO/EO Exam 2025

**UPSC LEVEL
PREPARATION**

STARTING 28TH feb 2025

For Any query Mesage
-9057921649



**BY SAURABH
PANDEY SIR**



Categories ▾

Search for anythings...

Login

Home

Courses ▾

saurabhpandeyupsc.com Affairs Pointers ▾

YouTube Channel

All Courses

⚡ Important Updates:

Current Affairs 14th February 2025

Current Affairs 13th February 2025

Current Affairs 12th

Popular Courses

For any query - message 9057921649

Prelims Module **course on**
CURRENT AFFAIRS BOTH
FOR PRELIMS AND MAINS 2025

Includes

- The Hindu Newspaper subjectwise coverage
- Yojana magazine
- Down to earth
- PIB
- Physics.org
- Mains qs
- Prelims Practice set

PRAHAR BATCH

BY SAURABH PANDEY SIR

PRAHAR Batch : Advance Current Affairs Course...

Admin

▶ Start Learning

PRELIMS 10 SERIES

Prelims Module

UPSC CSE PRELIMS 2025 TEST SERIES

10 FULL LENGTH TESTS

Attempt High Quality Qs Starting - 2nd FEB

BY SAURABH PANDEY SIR

Super 10 Series – Ten Full Length Tests For UPSC...

Admin

▶ Start Learning

Prelims Module **REVISION BATCH**

Includes

TARGET 18+ Qs

SPECTRUM BOOK

ANCIENT INDIA - OLD NCERT

Introduction of Indian Arts NCERT

BY SAURABH PANDEY SIR

History Revision Batch FOR UPSC CSE PRELIMS...

Admin

▶ Start Learning

Prelims Module **2 YEARS PRELIMS CURRENT AFFAIRS**

2YRS CURRENT AFFAIRS COURSE

2YRS Prelims current affairs

Focus on Newspapers, down to earth, PIB and all important current Practice sets

BY SAURABH PANDEY SIR

Last year 50+ qs from sessions

Download - saurabh pandey cse app

PT370 Course On 2 Years Prelims Current Affairs

Admin

▶ Start Learning





























