# Chronicle

Founder: Late Shri Ramgopal Maheshwari Inspiration: Late Shri Prafulla Kumar Maheshwari

### **EDITORIAL**

#### Saving trend

The report recently published by the Reserve Bank of India is worrying. According to this report, there has been a decline in domestic savings in the country. Data shows that net domestic financial savings will remain at 5.1 percent of gross domestic product (GDP) in 2022-23, which is its level in several decades. Last year it was 7.2 percent. There can be many reasons for such decline in financial savings. Since there has been an overall decline in savings, it is possible that the income of families whose income was hit during the pandemic may not have fully recovered. Therefore, it may be possible that the improvement in the economy is due to the profits of companies, which have been showing good growth for the last several quarters. Another reason may also be that due to the continuously rising inflation, families have not been able to save. The inflation rate based on Retail Price Index has remained at a high level since the pandemic. The Reserve Bank has also failed to achieve the inflation target set for 2022 and it had to explain to the Central Government. The inflation rate is once again above the range set by the Central Bank. Financial liabilities of households also increased to 5.8 percent of GDP in 2022-23, which was only 3.8 percent in 2021-22. It can be assumed that people may have taken borrowing for consumption because their income was not sufficient. It is also possible that people may have spent and borrowed money to buy immovable property like houses etc. Loan availment figures also indicate that the pace of people's borrowing has increased. Domestic debt increased from 36.9 percent in 2021-22 to 37.6 percent of GDP in 2022-23. If consumption demand is also being supported by debt, which it seems to be to some extent, the household accounts. But demand will remain weak in future. This weak demand will clearly mean weak economic growth in the near term. It is expected that improvement in private investment will help growth. But in the absence of sustained growth in private consumption, companies may also not be willing to expand capacity. Since global demand is also expected to remain weak, companies may also not want to make new big investments.

In such a situation, if private consumption, investment and exports remain weak from the macroeconomic point of view, the government will have to compensate for it. This is what the government has been doing for some time now through high capital expenditure. But given all the fiscal constraints, the government may not be able to do this for long. A decline in domestic financial savings can also affect interest rates and investment. It is worth noting that government borrowing is less than the financial savings from the domestic sector. is greater than the supply of capital. If the corporate sector starts borrowing more for investment, interest rates will rise. The increase in investment coupled with lower domestic savings will mean India will need to import capital. If it has to do so, then different All kinds of problems will arise. In such a situation, it appears that while the overall production has recovered from the shock of the pandemic, the recovery has been up and down and it will take time to re-balance it. Therefore, it remains a policy challenge that at a time when the global Growth in the economy is expected to be slow and fiscal constraints may increase, at that time how to achieve economic growth is a question to considered. However, every possible effort will have to be made to increase domestic savings.

# Shooting our own foot: Misuse of medicines is making infections difficult to treat

Shobha Shukla, Bobby Ramakant- CNS Antimicrobial resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and become resistant to (or no longer respond to) medicines, making infections harder to treat and increasing the risk of disease spread, severe illness and death. As a result of drug resistance, medicines become ineffective,

and infections become increasingly

difficult or impossible to treat. That is

why AMR ranks among the top ten global health threats worldwide. "Antimicrobial Resistance (AMR) is a problem driven by misuse and overuse of antimicrobial medicines, including antibiotics and antivirals, and results in critical medicines losing effectiveness to treat infections," said Thomas Joseph, Head, AMR

Awareness, Advocacy and Campaigns, World Health Organization (WHO), at a recent pre-conference meet of 22nd International Conference on AIDS and STIs in Africa (ICASA).

"AMR is associated with 5 million deaths a year. Besides this, there is the huge burden of morbidity and healthcare expenditure that can affect household welfare severely. The World Bank estimates that Global GDP could fall by \$1 to \$3.4 trillion annually after 2030 due to AMR," he added. The World Bank estimates that an additional 24 million people would be forced into extreme poverty by 2030 if no action is taken on AMR today.

Drawing attention to World AMR Awareness Week (WAAW) which is cel-ebrated between 18-24 November every year, Thomas cautioned that "All stakeholders should realize that if we do not act now, we could go back to a pre-antibiotic era, when even simple

Antimicrobials should be regarded as global public goods. Governments should strengthen their health systems and push for universal health coverage, so that all have access to the needed antimicrobials prescribed by registered healthcare providers," said Thomas.

∠ "AMR is associated with 5 million deaths a year. Besides this, there is the huge burden of morbidity and healthcare expenditure that can affect household welfare severely. The World Bank estimates that Global GDP could fall by \$1 to \$3.4 trillion annually after 2030 due to AMR," he added. The World Bank estimates that an additional 24 million people would be forced into extreme poverty by 2030 if no action is taken on AMR today.

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#### Antimicrobials should be regarded as global public goods

There are several issues of access and equity affecting AMR. "Research and development of new treatment options, including new antibiotics, is not prioritized due to a sector-wide market failure. As a result, we are running out of treatment options and new drugs are not coming into the market. Even when new medicines finally reach the market, low- and middleincome countries are not able to access these due to intellectual properconstraints. pricing

#### Be the change: Sharing personal experience of surviving AMR

Vanessa Carter, an AMR patient survivor, One Health advocate, Chairperson of the WHO Taskforce of AMR Survivors, and founder of The AMR Narrative was one of the speakers at the 3rd Annual Global Media Forum on AMR, hosted by Global AMR Media Alliance in lead up to WAAW 2023.

She shared her eye-opening personal experience of her battle with

"In 2004, I was 25 years old. I had a severe car accident in Johannesburg, South Africa, and ended up in a hospital with a lot of massive injuries. I had been resuscitated on the side of the road, I was put on life support, I had multiple fractures in my face- a broken jaw and a broken nose- and also los one eye. I also had a head injury, major abdominal injury, fractured pelvis neck, and back injury. But the most complicated injuries were to my face and it took me 10 years to recover from them, during which time I have had 4 different facial prosthetic implants,

But the worst was yet to come. Six years into the accident and after her fourth implant, one day, while getting into her car, Vanessa saw moisture seeping all over her face. It was pus oozing out from her 4th implanted prosthetic. She underwent emergency surgery, and the doctors did "debride ment" and reconstructive surgery to fix up the damaged tissue. Two weeks later, the infection returned. She got more of tissue reconstruction done But the infection kept on returning and it worsened over time. This went on for the next 11 months during which she was kept under the care of several specialist surgeons.

Vanessa was eventually diagnosed with highly antibiotic resistant form of (Methicillin-resistant Staphylococcus aureus) infection. She could not undergo any more surgeries for one year, as the doctors had to wait for tissue to recover. "I had to cover my face as I looked terrible.

## Brain scans tell how teens handle pandemic stress

Brain scans could be used to predict how teenagers' mental health will fare during a stressful time, an analysis that spanned the COVID-19 pandemic suggests.

The findings, presented November 13 in a news briefing at the annual meeting of the Society for Neuroscience, may help explain why some people succumb to stress while others are more resilient.

For a lot of research, "the study happens, and you report on the results, and that's about it," says Margot Wagner, a bioengineer at the University of California, San Diego who was not involved in the new work. But this research followed hundreds of teenagers over time, a study design that "means you can intervene and help way sooner than otherwise," Wagner says.
The pandemic was particularly

tough for many teenagers, as isolation, worry and upheaval of daily routines affected them in ways that scientists are just nowstarting to see (SN: 1/3/23). A record number of young people are struggling with depression and anxiety, a mental health crisis that some scientists are calling "the second



pandemic" (SN: 6/30/23).

While many teenagers struggled during the pandemic, others did OK. neuroscientist Computational Caterina Stamoulis of Harvard Medical School and Boston Children's Hospital investigated why responses differed using data collected as part of the Adolescent Brain Cognitive Development, or ABCD, study. That larger study — involving scientists at 21 research sites across the United States — aims to figure out how teenagers' brains grow over the years.

"This is the first time in history

we're looking at thousands of participants and getting these measures over time," Wagner says. "It's truly remark-

The ABCD study, begun in 2015, was well under way when COVID hit,

so researchers possessed brain scans from before the pandemic. "Without the pandemic, we would not have been able to understand the impact of a long-lasting adverse event" that deeply affected the participants' lives, changing their interactions with their family and friends, Stamoulis says.

At the outset of the project, fMRI

brain scans measured blood flow — a proxy for brain cell activity — in 1,414 teenagers, a subset of the more than 11,000 adolescents enrolled in the ABCD study. The fMRI images recorded how certain regions of the brain behave in tandem with each other, a clue that those regions work together in what neuroscientists call a brain

"Neuroimaging data is particularly useful for developing predictive models of future outcomes," says neuro-scientist and engineer Vince Calhoun of Georgia Tech, "including resilience to stress, depression and many other

In May 2020, as the world shut down, researchers started surveying the teenagers in the study about how they were holding up. These surveys, sent every few months, measured aspects of mental health, stress and sadness, among other things. Teenagers who had weaker neural

connections between certain parts of the brain before the pandemic fared worse than teenagers with stronger neural connections, the team found These brain regions included the prefrontal cortex, a brain area that gets drastically reshaped during adoles cence, and the amygdala, a structure on each side of the brain that's involved in emotions. Weaker brain connections were associated with kids having more sadness and stress during the pandemic.

Weaker and more fragile networks predicted harder times during the pandemic, Stamoulis says. But "stronger and more resilient brain networks predicted better mental health, lower stress and lower sad-

She and her colleagues plan to study these brain circuits as time goes on. As brains develop, they respond to experiences and environments. If those are positive, Stamoulis says they can be "protective factors for the brain and how its circuits evolve and

#### Satire

#### Election promises to win poll

Friend said to me: Union home minister Amit Shah on Monday said that the Bharatiya Janata Party (BJP) government in Madhya Pradesh will arrange a darshan of Ramlala in Ayodhya for the people of the state free of cost, if it is voted to power in the state again.

then there is a need to correct

I said: Addressing several rallies in the

poll-bound state, Shah underlined how the religious places being renovateď under the leadership of Prime Minister Narendra Modi.

Friend said: Do you want darhave shan Ramlala or not? You will have spend (money) for

But don't worry about the expenses. Give mandate to the BJP to form its government on December 3 and the BJP government will make you have darshan of Ramlala in Ayodhya free of cost, Shah said in Raghogarh.

I said: Hitting out at the Congress for, what he said, insulting Indian culture and pilgrimage centres, Shah said it's Prime Minister Narendra Modi who built Ram Temple in Ayodhya, Kashi Vishwanath corridor and Mahakal Lok. "Somnath temple is being made of gold. Badarinath temple was renovated and so was Kedarnath temple. Vindhyavasini Devi temple was being rebuilt, he

Friend said: For 550 years

since Babar destroyed the temple in Ayodhya, Lord Sriram was in an insulted state. Seventy years since the country achieved its freedom, Congress didn't address the issue and didn't allow construction of Ram Temple as it was concerned about its vote bank. You made Modi ji PM and he performed the Bhoomi poojan of



Ram temple, he said.

Friend said: Shah said three families of the Congress had ruined Madhya Pradesh and it got the tag of BIMARU state but the BJP made it a developing state. Sonia Gandhi wants to make her son Rahul Gandhi PM. Digvijaya Singh wants to make his son Jaivardhan Singh CM and Kamal Nath wants to see his son Nakul Nath as CM. Those who want to make their sons PM and CM, how can they think of progress of the state and welfare of people? he asked. He said the then UPA government gave 2 lakh crore to the state in its 10 years rule whereas the state got 13 lakh crore from PM Modi in his 9 years

#### Science Fact

#### New treatment helps to restore sense of smell in patients with long Covid: Study

Researchers may be able to restore the sense of smell in people who have suffered from long-COVID via an image-guided minimally invasive approach, according to research presented at the annual meeting of the Radiological Society of North

COVID-19 is known to cause parosmia, a disease in which the sense of smell no longer works properly. According to recent studies, up to 60% of

COVID-19 patients are affected. While most patients' sense of smell returns with time, some patients with chronic COVID experience these symptoms for months, if not years, after infection, significantly compromising their appetite and general quality of life. "Post-COVID parosmia is common and increasingly recognized," said the study's lead author, Adam C. Zoga, M.D., M.B.A., professor of musculoskeletal radiology at Jefferson Health in Philadelphia, Pennsylvania. "Patients can develop a distaste for foods and drinks they used to enjoy."

The distorted sense of smell can also affect smell perception, and some patients may suffer from phantosmia, a condition that causes people to detect smells—foul or pleasant- -that aren't in their environment. To assess a possible treatment for patients with long-term post-COVID parosmia, researchers looked at the potential benefits of CT-guided stellate ganglion block. Part of the autonomic nervous system, which regulates involuntary processes including heart rate, blood pressure, breathing and digestion, the stellate ganglia are nerves on each side of the neck.

#### |Spiritual

#### The power of ritual

Incense sticks and dhoop have long been common in many South Asian homes, temples and Ayurvedic centres. Shrankhla Holecek, founder of the beauty and wellness label Uma, was first exposed to incense burning in the temples where she was raised in India. "It really touches all aspects of our lives," she says, adding that "not a single day passed by without smelling incense burned in my home".

Holecek, 37, says that incense is a tool for heightening spiritual practices and rituals that bring people closer to universal consciousness as "the spirit of the prayer disseminates through the home". Incense is also burned in ceremonies to commemorate the departed.

When Holecek introduced a line of incense after creating Uma in 2017, the product threw off customers because "it's just not part of the cultural experience in the west". Holecek thinks that people don't automatically associate the origins of incense with India because of the western commercialisation of the product. This cultural divide caused what she describes as a "slow burn" in her customers buying incense, but from June to December of this year, sales spiked by 1,300 per cent. She hopes that this embrace of incense will continue to change how people incorporate smells into their homes and engage in ritu-

In the realm of spirituality, incense is a tool used for cleansing the energy in a space, according to Lala Lopez, the owner of Mothball Memoirs. Within some cultures, it plays a significant role in ceremonies and traditions. For example, burning incense in tombs to worship the gods was fundamental in ancient Egypt. Greeks and Romans used it to repel demons and evil spirits. Eastern religions often use it as a way of honouring ancestors. Park points out that incense was "historically used as a measurement of time".

#### Quotes



If the Chancellor's position were in other hands, the goal of universities would be destroyed.



PM Modi is asking for a mandate based on three tools: the ED and CBI, which have been raiding against opposition leaders; the second tool is the language of polarisation, so that the harmony of society can be distorted. The third tool is that the PM does not speak the truth.

Jairam Ramesh



The Prime Minister has not done any work apart from abusing us in the Congress. He abuses me, Rahul Gandhi, and recently, he has started abusing Ashok Gehlot as well.

Mallikarjun Kharge

#### Tech

#### iPhone 16 to offer better battery life, bigger display, new leak reveals

The leaks around iPhone 16 have already started surfacing online. The latest piece of information floating on the internet reveals that the iPhone 16 might just come with better and bigger displays. However, that is predicted only for the base models will feature the standard





size whereas the pro models are likely to get slightly bigger panels. Major revelations also been made about the battery of the iPhone 16, let us take a look at what the tipsters have to say about the battery life of the upcoming iPhone 16. According to a report from a South Korean media source called Naver, insiders in the supply chain suggest that the iPhone 16 and iPhone 16 Plus might have displays measuring 6.12 inches and 6.69 inches, respectively, using a technology called LTPS 60Hz. These sizes would likely be similar to the regular iPhone 15 models, with potential differences in some aspects that aren't clear yet. However, more significant changes are expected in the Pro models. Rumors speculate that the iPhone 16 Pro could feature a 6.27-inch LTPO display, while the Pro Max (Ultra) might have a 6.86-inch LTPO screen. In comparison, the iPhone 15 Pro had a 6.1-inch screen, and the iPhone 15 Pro Max had a 6.7-inch panel. But the claimed size of the iPhone 16 Pro Max screen seems unusually large, so it's wise to be cautious about this information. Separately, a leak from Kosutami San on X.com revealed alleged prototype photos of the iPhone 16 Pro's battery. These images show a frosted metallic shell and a battery size approximately 2.5 percent larger than its predecessor. If this leak is accurate, the iPhone 16 Pro models might transition from a black foil casing to a metal-

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