

QUICKLY.

CPSEs dividend receipts cross revised estimates



New Delhi: The Centre's dividend receipts from CPSEs have exceeded the revised Budget estimate by 26 per cent to about ₹63,000 crore, with PSU behemoths like Coal India, ONGC, Powergrid and GAIL making handsome payouts in the current fiscal. The revised estimates pegged dividend receipts from CPSEs at ₹50,000 crore for the current fiscal. **PTI**

NTPC shuts Barauni thermal power station

New Delhi: NTPC has closed down its Barauni Thermal Power Station Stage-I of 220 MW permanently. NTPC acquired Barauni Thermal Power Station (720 MW) in District Begusarai, Bihar, from Bihar State Power Generation Company on December 15, 2018. **PTI**

Panel formed to explore use of biochar in steel production



New Delhi: The Centre has set up a task force to explore the use of biochar in steel production as part of its efforts to reduce carbon emissions in the steel industry. The domestic steel sector accounts for 12 per cent of India's greenhouse gas emissions with an emission intensity of 2.55 tonnes CO₂ per tonne of crude steel compared with the global average of 1.9 tonnes CO₂. **PTI**

CBIC issues new norms for GST probes

EYE ON EFFICIENCY. Seeks to consolidate investigations under one entity; sets deadline for concluding proceedings

Shishir Sinha
New Delhi



PARADIGM SHIFT. The guidelines emphasise proactive measures to prevent grievances and ensure timely resolution

New guidelines from the Central Board of Indirect Taxes & Customs (CBIC) suggest that GST assesseees could soon encounter multiple investigations conducted by a single office. The guidelines have also streamlined the process of initiating GST investigations against multinationals or big industrial houses. A deadline of one year has been set to conclude the investigation. The board has issued the new set of guidelines aimed at maintaining ease of doing business while engaging in investigation with regular taxpayers. One such guideline says if there is a situation where it comes to the Commissionerate's notice that either the DGGI (Director General of GST In-

vestigation) or the State GST department is simultaneously undertaking record-based investigation of the same taxpayer on different subject matters, the investigation should be assigned to just one office while others will provide required documents to them. "The Principal Commissioner must engage in dialogue with the other investigating office (s) to consider the feasibility of only one of the offices pursuing all these

subject matters with respect to the taxpayer and the other offices consolidating their material with that office," the guideline said. The guidelines have also assigned responsibility for approving investigations against various categories of taxpayers. It has been said that though each investigation must be initiated only after the approval of the Principal Commissioner, consent will be required from Zonal Principal Chief Commissioners to initiate an investigation or take action for cases falling into four categories. The first category is matters of interpretation seeking to levy tax/duty on any sector/commodity/service for the first time, whether for central excise or GST. The second category is big industrial house and major multinational corporations. The third category is sensitive matters or matters with national implications. The fourth category is related to matters already before the GST Council.

Another guideline is related to listed companies, public sector undertakings (PSU), government departments or agencies or authorities established under the law. Now, it has been laid down that the CGST field formation should initially address official letters (instead of summons) to the designated officer of such entity.

A directive has been issued to refrain from requesting information already available in digital or online formats on the GST portal. **TIMELINE OF PROBE** Talking about timelines, it has been said, "An investigation initiated must reach the earliest conclusion which is not more than one year. It is not necessary to keep the investigation pending until the limitation in law approaches. A show-cause notice should not be delayed after the conclusion of the investigation." Commenting on the guidelines, Rajat Mohan, Executive Director with MOORE Singhi, said that the instructions underscore the significance of strict adherence to legal provisions and advocate proactive measures to forestall grievances and ensure the expeditious resolution of investigations. Experts said that these actions of the tax department could be detrimental to the growth of the start-up ecosystem and foreign direct investment in the country. "Almost in all such cases, the funds received by the start-ups are from reputed investors, who have made substantial FDI investments in India over several years," said Punit Shah, Partner, Dhruva Advisors. "Even foreign investments, which were earlier exempt from angel tax, have now come under its ambit under Section 56. Fresh notices under Section 68 are now adding to the woes of start-ups. All this doesn't augur well for an ecosystem that's supposed to be a key job-creation engine," added Nikunj Bubna, CEO of TheWowBox India. The Finance Act, 2023, brought investments by non-residents in unlisted Indian companies at a price more than the fair market value within the ambit of angel tax provisions.

I-T dept issues notices to start-ups over receipt of share premium money

Ashley Coutinho
Mumbai

Income tax authorities have issued notices to several start-ups in connection with the share premium money they received a couple of years ago, said two people in the know. The department has asked for details of the nature and the source of the investments and the creditworthiness of the investors. It has also questioned the valuation and pricing of the shares issued to the investors by the start-ups and asked for a justification for the said valuation. Experts said that these actions of the tax department could be detrimental to the growth of the start-up ecosystem and foreign direct investment in the country.

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To justify the high share premium, investors may need to furnish the valuation report for the issuance of securities at a premium and audited financials of the company during and after the fundraising. Documents required to establish investors' creditworthiness may include the last three years' tax returns, bank statements and financials. To be sure, registered start-ups that fulfil certain conditions as per the notification issued by DPIIT are exempt from angel tax provisions. A CBDT notification has clarified that assessment in relation to provisions of the angel tax shall not be carried out in the case of such start-ups. "We have observed income tax officers honouring the notification in the assessment of eligible cases. The Section 68 provisions relating to cash credits, however, operate independently of the angel tax provisions," said Yashesh Ashar, Partner, Illume Advisory. He added that providing the relevant source of money belonging to resident investors will require the co-operation of the concerned investors.

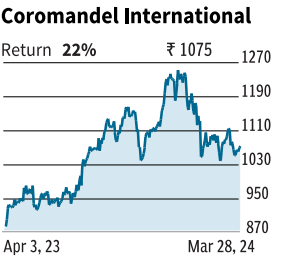
VALUATION REPORT According to Shah, Section 56 (2) (viib) or Section 68 are essentially anti-abuse provisions and should be used by the tax department only in the suspected cases of tax evasion or avoidance and not in

TODAY'S PICK.

Coromandel International (₹1,075.95): BUY

Akhil Nallamuthu
bl, research bureau

Coromandel International's stock faced considerable selling pressure in December and January. But since February, it has been charting a sideways trend between ₹1,035 and ₹1,120. Notably, the downtrend was arrested by the support at ₹1,035. This has been holding well since August last year. We expect the stock to gain traction on the back of this and establish a rally, at least in the short-term. Since the stock is now hovering near the ₹1,035 support and the daily RSI is showing positive indications, the probability of a rally is high. We anticipate Coromandel International to



break out of ₹1,120 soon and touch ₹1,175. So, traders can buy now at ₹1,075 and accumulate at ₹1,050. Place stop-loss at ₹1,020. When the scrip rallies past ₹1,120, tighten the stop-loss to ₹1,080. Exit at ₹1,175.

Note: The recommendations are based on technical analysis. There is a risk of loss in trading.

KR Srivats
New Delhi

The National Council of Applied Economic Research (NCAER) on Sunday said that the Indian economy remained buoyant at the end of fiscal 2023-24 and is set to clock 7.6 per cent growth as projected in the CSO's second advance estimate. Both the purchasing manager's index (PMI) for manufacturing and the index on services are maintaining a robust trend, raising optimism about the economy. Key markers point to the Indian economy remaining buoyant at the end of FY 2023-24 with the PMI for manufacturing increasing and that on services maintaining a robust

trend, according to NCAER's monthly economic review for March 2024. The PMI for manufacturing activity increased to 56.9 in February, reflecting a strong expansionary momentum. Growth in the output of eight key infrastructure sectors rose to a three-month high of 6.7 per cent in February from 4.1 per cent in January 2024.

OPTIMISTIC OUTLOOK GST collections, too, remained buoyant, reaching a value of ₹1.7 lakh crore in February, registering a year-on-year growth of 12.5 per cent. Collections of GST e-way bills marked an equally impressive y-o-y growth of 18.9 per cent. Bank credit growth remained strong at 20.5 per cent with robust

growth for personal loans, services and agriculture and allied activities. "These and other markers corroborate the optimistic growth outlook of 7.6 per cent growth rate for FY 2023-24 as per the second advance estimates," said NCAER Director General Poonam Gupta. "Strong growth combined with elevated inflation rates will likely result in a status quo on policy rates when the Monetary Policy Committee meets on April 3-5," Gupta added. Meanwhile, inflationary pressures remained elevated with Consumer Price Index headline inflation at 5.1 per cent in February 2024, primarily due to high food price inflation and despite core inflation declining.

Fourth tranche of auction for critical minerals likely post polls

Abhishek Law
New Delhi

Seven critical mineral blocks, that were put out for auction in the first round, have either not got bidders or have got less than three qualified bidders. These blocks will again be put up for auction in the fourth tranche, due later this year, following a tweak in some rules including putting in place clearances, the absence of which has come as a hindrance to the auction process, sources in the Union Mines Ministry told *businessline*. A second round of e-auction is under way for another six mineral blocks that have got more than five bids. This round of bidding is being carried out to determine the winner of these blocks, mostly relating to fertilizer minerals, sources said. "The second round of e-auction (forward



NO TAKERS. Seven blocks, that were put out in the first round, have either not got bidders or have got fewer than three bidders

ascending) was scheduled for six blocks vide notification dated March 13 2024. The second round of e-auction for these blocks are underway and will be completed as per schedule. The results will be out in the next few days," VL Kantha Rao, Mines Secretary, said. There were no bids for two blocks -- reportedly molybdenum in Tamil Nadu -- and

less than three Technically Qualified Bidders (TQB) were there for four blocks, another official said. "The fourth tranche critical mineral block auctions will take place post the polls. And, we are preparing for the same," Rao said, adding that six blocks, which have not got bidders or have less than three bidders will be added to the fourth tranche.

Anti-dumping probe initiated on saccharin imports from China

KR Srivats
New Delhi

The Directorate General of Trade Remedies (DGTR) in the Commerce and Industry Ministry has initiated an anti-dumping probe on imports of saccharin from China. Simultaneously, DGTR has also initiated a sunset review investigation of countervailing duty on imports of saccharin from China. The application seeking anti-dumping probe as well as the sunset review investigation of countervailing duty was filed by Swati Petro Products Ltd and Blue Jet Healthcare Ltd. There are two other producers of saccharin—A.S.Chemopharma and Shree Vardayini Chemical Industries Pvt Ltd. Saccharin is a non-nutritive sweetener and considered to be low-calorie substitute for cane sugar.

India accounts for 20% of upcoming regasification capacity in Asia Pacific

Rishi Ranjan Kala
New Delhi

India, the world's fourth largest liquefied natural gas (LNG) importer, is expanding its natural gas infrastructure by adding 24 million tonnes per annum (mtpa) of capacity accounting for around 20 per cent of the total regasification capacity being added in Asia Pacific. As per the latest annual report of the Gas Exporting Countries Forum (GECF), India will be the world's largest growth market for natural gas in the next decade with China claiming the top spot till 2030. The GECF report pointed out that Asia-Pacific boasted of around 566 mtpa of regasification capacity in 2022, with a significant 82 per cent primarily situated within the legacy JKT (Japan, South Korea, Chinese Taipei) group, constituting 64 per cent and



HAPPENING PLACE. As per the latest annual report of the GECF, India will be the world's largest growth market for natural gas in the next decade, with China claiming the top spot till 2030

China with 18 per cent. The rest, comprising South and Southeast Asia, contributed to the remaining 18 per cent. **ASIA PACIFIC** Among these, Japan leads with 210 mtpa, followed by South Korea (139 mtpa), China (100 mtpa) and India (40 mtpa). "In 2022, construction was underway for approximately

structure," it added. India's gas demand is forecast to be met via expanded gas pipeline and LNG regasification capacity. Estimations indicate that Indian LNG imports could double, reaching 39 mt by 2030, and rise to 80 mt by 2040 and 105 mt by 2050. **INDIA'S CAPACITY** "Realising such an outcome necessitates substantial investment in both supply and distribution infrastructure. By 2050, it is anticipated that India will increase its regasification capacity by 75 mtpa, reaching a total of 115 mtpa, which marks a significant rise from the existing capacity of 40 mtpa," GECF said. India is actively targeting a 15 per cent increase in the share of natural gas in its energy mix by 2030.

Dedicated Freight Corridor Corporation looks to ramp up truck-on-train services

Abhishek Law
New Delhi

The Dedicated Freight Corridor Corporation of India Ltd (DFCCIL) under the Indian Railways is looking to ramp up its truck-on-train services after successful trial runs with both perishables (like milk) and non-perishables (auto components). At present, the DFC offers truck-on-train services on both the eastern and western dedicated freight corridors. According to officials of the Dedicated Freight Corridor (DFC), the truck-on-train service is open for all "feasible" goods and products. "So far, we have successfully carried out trials for auto-components, while there are regular services for perishables such as milk and

cattle feed. Depending on demand, we would like to ramp up services," a DFCCIL official told *businessline*.

TRUCK-ON-TRAIN

The truck-on-train service is one where loaded trucks are directly carried to their destinations on railway wagons. This 'Roll on Roll off' (Ro-Ro) service that combines road and rail transport, carries trucks on Railway wagons from origin to destination or on a section of the journey. Konkan Railways was the first to offer Ro-Ro services as a dedicated facility in India. Flat BRN wagons (without side walls) with strengthened base, originally used for carrying steel products, were deployed for RoRo operations. The Indian Railways officially introduced the service in 2016.

Southwestern Railways adopted it on the Bengaluru-Solapur route, but the service was halted after a few trips. According to the official, the milk and cattle feed service was launched in June 2023. The service began with 25 loaded trucks daily on either side. The trucks carried milk tankers from Gujarat to the National Capital Region, and cattle feed for farmers and milk unions on the return. For 25 trucks, the earnings are estimated at ₹8,00,000 per trip. According to the official, the truck-on-train service for auto-parts transportation "is open for all routes of DFC." However, at present, the demand does not convert into train load. As of now, auto-ancillaries are transported through truck-on-train trains.

Recently notified regulations applicable to cases under investigation: CCI chief

Press Trust of India
New Delhi

The recently notified competition regulations on settlement, commitment, leniency plus and global turnover will be applicable to cases that are under investigation by the Competition Commission, according to the watchdog's chief Ravneet Kaur. In an interview with *PTI*, she also said the new regulations related to settlement and commitment framework will help in providing quick market correction. Last year, Parliament cleared various amendments to the Competition Act and in recent times, the Competition Commission of India (CCI) has notified



Ravneet Kaur, Chairperson of CCI

existence of a cartel and stressed the importance of getting information about cartelisation to establish the existence of a cartel. Now, the watchdog also has the power to impose a penalty of up to 10 per cent of a company's global turnover for competition law violations.

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thehindu **businessline.**

**पावरग्रिड
POWERGRID**

NOTICE

1. Approval under Regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations' 2019 for determination of Transmission Tariff from Proposed DOCO to 31-03-2024 for Asset-1: 1 no. 400kV Bay at 765/400kV Kurnool (New) Substation under implementation of 1 no. 400kV Bay at 765/400kV Kurnool (New) Substation in Southern Region.

2. The beneficiaries of the above mentioned Transmission system are: (a) TANGEDCO (b) TSNPDCL (c) KSEB (d) TSSPDCL (e) Electricity Dept. of Goa (f) Electricity Dept. of Puducherry (g) APEDCL (h) APSPDCL (i) CESC (j) MESCOM (k) BESCOM (l) GESCOM (m) HESCO (n) Greenko AP01 IREP Private Limited & (o) CTUIL.

3. Tariff details:

Name of the Asset	Asset-1
Schedule DOCO (FR)	01.11.2022
DOCO (Actual/Anticipated)	24.10.2023 (Proposed)
Estimated Completion Cost (Rs in Lakhs)	641.95
Tariff for year 2019-24 (Rs in Lakhs)	
2019-20	0.00
2020-21	0.00
2021-22	0.00
2022-23	0.00
2023-24	46.00

4. A copy of the application made for determination of tariff is posted on the website of the applicant at www.powergrid.in.

5. The suggestions and objections, if any, on the proposals for determination of tariff contained in the application be filed by any person, including the beneficiary before the Secretary, Central Electricity Regulatory Commission, 3 & 4th floor, Chandrakol Building, Janpath, New Delhi-110 001 (or other address where the office of the Commission is situated), with a copy to the applicant at the address of its corporate office within 30 days of publication of this notice.

Place: GURUGRAM
Date: 26.03.2024

Sd/-
General Manager (Commercial)

POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
Registered Office: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016
Corporate Office: "Saudamini", Plot No.2, Sector-29, Gurugram, Haryana-122 001

A MAHARATNA PSU

VIKSIT VISION

Need 400 seats to crush the corrupt: Modi

SEEKING MIGHT TO SET IT RIGHT. Prime Minister says he needs that kind of absolute majority to make India ‘viksit’

Dalip Singh
New Delhi

Prime Minister Narendra Modi on Sunday lashed out against the Opposition INDIA block, asserting that the attacks on him will not stop the fight against corruption irrespective of the status of those involved. Launching the BJP’s election campaign at a public rally in Meerut, western Uttar Pradesh, Modi said the contest in this election is between the NDA, which is fighting against corruption, and INDIA which is out to save the corrupt. UP Chief Minister Yogi Adityanath, NDA ally RLD chief Jayant Choudhary, and party candidates were also present at the rally in Meerut, which will go to polls in the second phase of elections on April 26 along with other seats in the western UP that have strong Jat community influence. “I am fighting against cor-

ruption, and because of this, some people are rattled and have lost their cool...Modi’s mantra is ‘Bhrashtachar hatao’ and they say ‘Bhrashtacahri bachao’”, he said while seeking response from the jeering crowd in the rally, whether corruption should end or not. DIG AT KEJRIWAL Incidentally, the INDIA alliance also organised a rally on Sunday, attended by most of its partners, on “save democracy” at Ramlila ground in the national capital. The PM also took a dig at Delhi CM Arvind Kejriwal, who is behind bars in the excise case, stating that “some people have not even got bail from the Supreme Court.” Modi warned that his government will not spare even the powerful if they are corrupt and is working to return the looted money to the people to whom it belonged. “During Congress rule, thousands of crores of rupees of poor, small investors, and



MEMENTO MOMENT. Prime Minister Narendra Modi was felicitated during the public meeting in Meerut on Sunday. Uttar Pradesh Chief Minister Yogi Adityanath (left) is also seen

banks were syphoned off... We have confiscated the property of the corrupt people, and more than ₹17,000 crore have been returned to those whose money was looted,” he said. Repeating the BJP coined

slogan, “abki baar 400 paar,” Modi told the huge gathering of people that he needs that kind of absolute majority not just to act against the corrupt but also to make India ‘viksit’ (developed), get rid of ‘garibi’ (poverty), offer

new opportunities for youth, and for farmers’ prosperity. FORWARD MOMENTUM In his entire speech, underlined by confidence that his government is returning to power comfortably for the

third consecutive term, Modi stayed away from emotive and ideological issues, except for a reference to the consecration of the Lord Ram idol at Ayodhya. “This election is not about forming a government or who will become MP. It’s for the Vikshit Bharat. The 2024 mandate will make Bharat the third largest economy in the world,” he told people, flagging another slogan, “Tisri bar, Modi sarkar”. He said his government has already started working for the third term and has set a new governance roadmap for 100 days. He also gave a report card of his government’s performance during the last decade, including improved infrastructure, disbursing ₹1-lakh crore to pensioners after implementing one rank, one pension for the armed forces, ending triple talaq, abrogating Article 370 from Jammu and Kashmir, and poor and women empowerment schemes.

EYE ON THE ISLAND

BJP, Congress cross swords over ceding of ‘Katchatheevu’

TE Raja Simhan
Chennai

“Eye-opening and startling!” Prime Minister Narendra Modi said in his X post on Sunday. “New facts reveal how Congress callously gave away Katchatheevu.” With that, the Prime Minister hooked the tiny island, which lies between Rameswaram and northern Sri Lanka, into the election narrative. The 285-acre uninhabited island, located 25 km off the Rameswaram coast, has been at the heart of a long-standing dispute between fishermen in Tamil Nadu and Sri Lanka, as it has a bearing on maritime boundaries. Indian (Tamil Nadu’s) fishermen arrested by Sri Lanka for boundary trespasses have been a regular feature and a sore point in the bilateral relationship between the two countries. Modi further said on X: “We can’t ever trust the Congress. Weakening India’s unity, integrity, and interests has been Congress’ way of working for 75 years and counting.” The allusion is to the allegation that the island was “ceded” to Sri Lanka by Prime Minister Indira Gandhi in 1974, when DMK leader Muthuvel Karunanidhi was Tamil Nadu Chief Minister. Ever since, detractors of Congress and the DMK have been blaming the two parties for compromising India’s sovereignty. Under the agreement, each side has sovereignty on its side of the island. The island it-



Prime Minister Narendra Modi

self belongs to Sri Lanka, but Indian fishermen may dry their nets on it, and Indian pilgrims may visit the church of St. Anthony (the patron saint of seafarers) without requiring a passport. The church, built by one Srinivasa Padaiyachi, is the only structure on the island; there is not even another shelter. KHARGE HITS BACK Reacting to Prime Minister Modi’s X post, Congress president Mallikarjun Kharge said that Modi’s “desperation is palpable.” He said, “You have suddenly woken up to the issues of territorial integrity and national security in your 10th year of misrule. Perhaps elections are the trigger.” He said that in 1974, a similar agreement, based on friendly gestures, was initiated with another country, Sri Lanka, on Katchatheevu. On the eve of elections in Tamil Nadu, you are raising this sensitive issue, but your own government’s Attorney General, Mukul Rohtagi, in 2014 told the Supreme Court that



Congress President Mallikarjun Kharge

“Katchatheevu went to Sri Lanka by an agreement in 1974. How can it be taken back today? If you want Katchatheevu back, you will have to go to war to get it back.” Kharge said, “You should tell, did your government take any steps to resolve this issue and take back Katchatheevu?” DMK spokesperson S Manuraj said it is an “outdated” political campaign matter. The issue surfaced following a news report based on replies received under a Right to Information query filed by BJP’s Tamil Nadu chief, K Annamalai. Annamalai, in a video on X, charged that the DMK concluded with the Congress to cede the island to Sri Lanka. On May 10, 1961, the first Prime Minister of the country, Pandit Jawaharlal Nehru dismissed the issue as inconsequential and added that he had no hesitation in giving up claims to the island. For years, the island has been a major political issue, with both the Dravidian parties — the DMK and the AIADMK — promising to retrieve it.

Abdul Salam: Ploughing a lonely furrow

MINORITY MORCHA. BJP’s only Muslim candidate in Kerala stresses on the party’s ‘secular’ development agenda

V.Sajeew Kumar
Kochi

Prime Minister Narendra Modi’s style of governance, giving thrust to reforms and development, and his stance against practices like muthalaq have made a tremendous impact on the Muslim population, including women, says Abdul Salam, BJP’s candidate for Lok Sabha polls in the Muslim-dominated Malappuram in Kerala. The former vice chancellor of Calicut University and the national vice president of BJP’s Minority Morcha is the lone Muslim candidate of the party contesting the elections. The academician turned politician will contest against ET Muhammed Basheer of the Indian Union Muslim League and V Vaseef of CPI (M). Historically, Malappuram and Ponnani constituencies have been the strong bastion of IUML, an ally of United Democratic Front of the Congress in Kerala. SILENT SUPPORT Talking to businessline, he said today there is no alternative but to vote for BJP considering the governance and functioning style of the PM. “My credentials as VC helped to get the attention of the PM, which paved the way to candidature. The student community and well-wishers have extended all support not openly but silently. We are planning to

The student community and well-wishers have extended all support not openly but silently. We are planning to highlight Modi’s achievements for the inclusive development of all communities



ABDUL SALAM
BJP candidate in Malappuram

highlight Modi’s achievements for the inclusive development of all communities,” Salam said. He points out that it is the false propaganda of the mainstream political parties against reforms and policies of the government that has made BJP untouchable in Malappuram and avers that because of the Modi factor, BJP will make inroads in Kerala this time as the people like the development programmes announced by the Prime Minister for their welfare. SECULAR STANCE On BJP’s image as a Hindutva party, Salam said: “It is wrong to assume that Hindutva parties are not secular. They are the most tolerant and allow others to live together in the country,” he said. IUML, which had been in

power for a long period, has never been a part of the Central Government, other than a brief stint held by former minister, the late E Ahamed. IUML’s inability to mobilise central resources through power sharing has not yielded the desired results. According to him, the present development in the Malabar region is because of the common agenda of Modi, and the influence of a BJP MP will bring in more opportunities. Meanwhile, a controversy had erupted over denying permission to Abdul Salam to accompany the Prime Minister in the open jeep during the road show held in Palakkad recently. However, Salam clarified that he had no complaints as he was not eligible for it and accused CPI (M) of fabricating stories.

I can be the MP who will be with the people right through: Annie Raja

LOST IN YATRA? CPI candidate says sitting MP Rahul Gandhi has been inaccessible; could have fought polls from some other State

Parvathi Benu
Wayanad

On a sweltering day in Wayanad, around 40 people assemble in Vaduvanchal. A group of men, with white handkerchiefs over their heads, stand near a metal roundabout, facing a make-shift podium some 100 metres in front of them. A group of women, some clad in sarees with a horizontal, thin line of sandal paste on their foreheads, some in burkhas, take refuge under the shade under a massive speaker. They stand there with conviction as they gaze at the podium, listening to a few local communist leaders talk to them about the Citizenship Amendment Act, electoral bonds, and so much more. Posters that read ‘Vote for Comrade Annie Raja’ hang around the podium and the walls near it. Suddenly, a man picks up a few red flags with ‘Hammer and Sickle’, the symbol of the

Communist Party of India, and moves towards a road where a white Toyota Innova halts. The crowd follows him swiftly. As Annie Raja opens the front door of the car and gets down, they surround her, waiting for an opportunity to shake hands with her. She doesn’t disappoint, as she gracefully does, and she marches with them towards the podium. A senior leader of the CPI, Raja is the Left Democratic Front’s 2024 General Election candidate from Wayanad, where she will face Congress scion Rahul Gandhi, the incumbent MP from the constituency, and the BJP’s K Surendran.

CONSTITUENCY CONNECTION “The current BJP government now targets Muslims. Christians will be next in line, and then everyone who is not a Brahman. If elected to power, I promise to be with you throughout here,” she says, taking a subtle dig at



CANDIDATE CONNECT. A senior CPI leader, Annie Raja (right) is the Left Democratic Front’s candidate for the Wayanad Lok Sabha seat, where she will face Congress scion Rahul Gandhi

Gandhi, who allegedly visited Wayanad only nine times since being elected. “I have been hearing a lot of complaints about how the current MP is inaccessible. The people here deserve better, an MP who will be with them throughout. I can be that,” she later tells businessline, on the way to her next campaign location. At 58, Raja is five years older than Gandhi. Born in a

communist family in Northern Kerala, she entered politics through the All India Students Federation (AISF), CPI’s student wing. She later went on to work for the AIYF and CPI and heads the National Federation of Indian Women. However, this is Raja’s first election. “For us Communists, politics isn’t just fighting elections. It’s just a part of it. Until now, I had organisational respons-

ibilities. Now, my party gave me a new responsibility, and I happily took it up. If I get elected, my role will be to represent my people and speak up for them in Parliament,” she says. The Left and Congress are allies in the INDIA bloc, while they fight each other in some States like Kerala. Quizzed about that, Raja said, “We are in an alliance to fight fascism, but from early on, we had an understanding that we will fight as the Left Democratic Front (LDF) and the United Democratic Front (UDF) in Kerala.” However, Raja doesn’t hesitate to express her exasperation at Gandhi’s decision to face the polls again from Wayanad. “There are States like Tamil Nadu, Karnataka, and Telangana where the Left and Congress are allies. The leaders there wanted him to fight from there, but he chose Wayanad again. If Congress was hell-bent on having him as an MP, he could have faced the polls from any of these places.

Now I begin to wonder if Gandhi takes the fight against fascism so lightly,” she said. At the same time, she dismisses Gandhi as a ‘big name’ in Indian politics. “During elections, the Kings and Queens are people. We are confident that they are convinced how important we are to them and how this government is trying to build a Brahmanical society,” she says, coming down heavily on the Modi government for implementing the CAA, keeping the wages for NREGA low, not assuring MSP to the protesting farmers, and the electoral bonds issue. “It is dacoity in daylight. The Modi government donned corruption in law’s clothes, and now the common man is aware of that too. We are also spreading more awareness on this issue while campaigning,” she says, adding, “The government is only interested in horse-trading and arresting opposition leaders. They have done nothing for the common man.”

QUICKLY.

Deepfakes fear

The political parties now have to deal with a new animal called deep fake technology. In a statement issued on Sunday, TDP condemned rival YSRCP’s attempts of spreading fake propaganda using this technology. “In one of their desperate yet failed attempts, the YSRCP used deep fake technology and video editing to spread false statements, claiming that N Chandrababu Naidu said his alliance with the BJP is temporary. However, in the original video, the TDP Chief mentioned the misuse of technology by YSRCP to spread false news about the TDP,” the statement said. Naidu, according to the statement had clarified that YSRCP released a fake press note in his name stating that the alliance is temporary. He urged people to be vigilant about such false propaganda and not fall into the trap of the YSRCP, the statement said. OUR BUREAU



Challenge BJP to cross even 200 seats: Mamata

West Bengal Chief Minister Mamata Banerjee on Sunday mocked the BJP’s target of winning 400-plus seats in the Lok Sabha polls and challenged the saffron camp to win at least 200 constituencies. Banerjee also asserted that she won’t allow the implementation of the Citizenship Amendment Act in the State. “The BJP is saying “400 paar”, I challenge them to cross the 200 seats benchmark first. In 2021 assembly polls, they gave a call of 200 plus seats but had to stop at 77,” she said. “The CAA is a trap to turn legal citizens into foreigners. We would allow neither CAA nor NRC in West Bengal,” she said. Banerjee slammed the opposition bloc INDIA partners — CPI(M) and Congress — for “joining hands with the BJP” in West Bengal. “There is no INDIA alliance in West Bengal. The CPI(M) and Congress are working for the BJP in Bengal,” she said while addressing an election rally at Krishnanagar in support of TMC candidate Mahua Moitra.



‘Polls will be held via ballots if 400 people file nominations’

Congress leader Digvijaya Singh, who is contesting from Rajgarh Lok Sabha seat in Madhya Pradesh, on Sunday said he was making efforts to get 400 people to file nominations so that polls will be held through ballot paper. He said this after asking people during a meeting in Kachnariya village in Susner if they wanted elections to be held through EVMs or ballot papers. Responding to the crowd shouting ballot paper, Singh said, “There is only one way for this. If 400 candidates fill nomination forms. I am preparing for this. This way, Rajgarh will see elections through ballot papers, Singh said, adding “let us see what happens”. Each EVM can have a maximum of 384 candidates, including NOTA, per constituency. A total of 16 candidates, including NOTA, can appear on one ballot unit and 24 such units can be connected simultaneously to the control unit. Singh was speaking during the first day of his eight-day ‘Vayda Nibhao Yatra’ foot march. ൧൧



QUOTE.



Modi ji says his guarantee is a strong one; we say that his guarantee is like Chinese goods...use it two-three times, and it goes bad. So his guarantees are only meant for elections TEJASHWI YADAV
Leader, RJD



It has emerged that the BJP is the most corrupt party. It is the ‘Bhrasht Janata Party’. Their real face has been exposed before the people UDDHAV THACKERAY
Shiv Sena (UBT) Chief

Justice on hold

Vacancies in SAT should be promptly filled

Financial market regulators such as the Securities Exchange Board of India (SEBI) may crack the whip on market actors suspected of manipulation, unfair trade practices or fraud, by issuing scores of penal orders every month. But it is the Securities Appellate Tribunal (SAT), the statutory body for hearing appeals, which is the final arbiter of the more serious cases investigated by SEBI. In FY23 alone, over 1,100 appeals were filed before the SAT, with 758 of them pending by end of that year.

In the past year, SAT has watered down EBI’s penalties in the NSE colocation and ark fibre cases, asked it to reconsider its disgorgement order in the Satyam Computers case, quashed the order cancelling Brickworks Ratings’ license and offered relief to the Zee Enterprises management. It is, therefore, disconcerting that SAT should be hobbled by lack of bench strength. As per a recent report in this newspaper, hearings before SAT have been getting adjourned for the last three months and new appeals have been piling up because the tribunal has been functioning with just one technical member, after its presiding officer demitted office in December 2023. The three-member body had already been functioning with just two members, after its judicial officer vacated his position last February. With the Centre not managing to fill either of these positions in time and the technical member not authorised to pass final orders, the tribunal is virtually non-functional.

This is not the first time that SAT’s functioning has been impaired by delays in appointments. In 2021-22, it went for almost a year without a technical member after the previous appointee demitted office in March 2021. The technical member is expected to weigh in with specialised inputs on the functioning of markets. Therefore, the vacancy led to SEBI lodging a protest on the validity of SAT orders without its technical member, prompting the tribunal to rule that its own orders were valid. There have also been a couple of occasions in the past where third-party petitioners have gone to Court questioning SAT orders which were passed without a presiding officer in place. Such controversies are quite unseemly for a statutory body which decides on landmark cases that have implications not only for investors, but also for the country’s reputation of having a well-regulated capital market.

This makes it imperative for the Centre to fill SAT vacancies on priority. Given the rising backlog of cases, and the fact that the tribunal rules not just on SEBI orders but also orders from insurance and pension regulators, there’s an urgent need to strengthen its composition by adding judicial muscle. The technical member on the tribunal should ideally be a person with experience of serving in the financial services industry. It is also about time the Centre acted on the Budget promise made by Finance Minister Jaitley in 2016 to amend the SEBI Act to provide for more benches of the SAT so that its backlog can be dealt with.

FROM THE VIEWSROOM.

Indian football at a crossroads

PV Anjana

The recent defeat of the Indian football team against Afghanistan in the World Cup qualifier, marking a winless streak of six matches, has raised doubts about the team’s potential under coach Igor Stimac. Both fans and sports authorities, including the Sports Ministry and the Sports Authority of India (SAI), have sought explanations from the All-India Football Federation (AIFF) regarding this disappointing performance.

Media reports highlighted post-match protests from Indian football fans in Guwahati, with chants demanding “Igor Stimac out”.

In response, AIFF has formed a five-member committee to engage in discussions with Stimac. Despite Stimac’s previous successes, which earned him a contract extension until 2026, media outlets now critique his leadership and coaching techniques. Stimac’s tendency to deflect blame adds to the

concerns. In February he wrote to AIFF in his Asian Cup postmortem report, “How we can expect more from our boys if we had never in our history qualified for the Asian Cup in U18/U20/U23?” There is growing perception that Stimac is reluctant to take ownership of a loss.

The ongoing winless streak signals a need for a reassessment of strategy and tactics. If Stimac fails to deliver improved results or make a shift in the strategy, in the upcoming matches against Qatar and Kuwait in June, the pressure to change the coach will be enormous.

However, addressing the team’s setbacks should not solely focus on Stimac’s leadership. AIFF needs to consider scheduling conflicts with domestic championships like the Indian Super League (ISL).

Moreover, investing in more friendly matches abroad can help. Achieving the objectives of India’s Vision 2047 require strategic planning beyond addressing individual coaching concerns.

Dealing with govt control over central banks

Central banks are stifled by the government’s overwhelming role. Private shareholding and private directors on the board can help the RBI do its duty better

LINE& LENGTH.

TCA SRINIVASA RAGHAVAN

The Reserve Bank of India (RBI) is celebrating its 90th anniversary today. It is India’s oldest Indian institution, older than even Parliament. It used to have private shareholders between 1935 and 1949, when, following the British nationalisation of 1946 of the Bank of England, it was nationalised. Things worked well enough after that but for the last 15 years there has been an ongoing debate about the ‘challenges before central banks’. Every participant agrees that there are ‘challenges’ but, quite frankly, no one is willing to talk about the two gorillas in the room, namely, governments and politics. Economists have been arguing incessantly about the technical aspects of monetary policy and their impact on the financial markets. That’s necessary but not sufficient because the two gorillas can no longer be ignored. It’s time to acknowledge openly that they have brought about a massive transformation in the relationship between governments and central banks.

ME TARZAN, YOU JANE Governments have always spent more than they receive as tax revenues. The

difference now is that they want to spend on the economy whereas earlier they wanted to spend on wars. Indeed, it was to enable the King of England to keep fighting that the Bank of England was set up in 1694. It would oversee the loans he took to fight his wars.

The huge difference between then and now is that whereas it was the central banks that controlled governments till 1971, it’s the governments that control central banks now. This reversal of the power equation is the biggest challenge before central banks today.

So the central banks can bleat on and on about ‘independence’ but that era ended when the US did two things between 1968 and 1972. One, it fully legitimised the politics of huge budget deficits, and and two, it snapped the link between metal (gold) and money.

Basically, it said governments could now borrow without limit because as the world’s signature currency provider it would print dollars without restraint. And that’s exactly what it has been doing since then. The rest of the world has had to adjust accordingly.

All this eventually culminated in the western Atlantic financial crisis of 2008 which, far from giving central banks more control, as it ought to have, has nearly eliminated them from the stage. Or, as an Indian finance minister told the Reserve Bank of India’s governor about 70 years ago, you are a ‘subordinate department of the finance ministry’. Even the US Fed’s freedom of action is constrained.

In other words, what India did at the

end of the 1950s, the world has done after 2008. To misquote the novelist James Hadley Chase, when governments say “jump, the central banks now ask how high — on the way up”.

PRIVATE SHAREHOLDING? Here’s the point: the biggest challenge before central banks are governments. Their objectives are totally misaligned. Central banks have to worry about long-term financial stability. Governments have to ensure short-term political gains. The two are mutually contradictory.

Thus, the RBI, until nationalisation, had quite a record of independence not just because of its first governor — who was sacked for his independence — but also because of its private shareholders, some of whom were on the board. They opposed British policies on interest rates and exchange rates depending on what they thought was good for India.

Now it’s not the shareholding that determines who will sit on the board. It’s

The objectives of central banks and governments are misaligned with the latter thinking of short-term political gains and the former of long-term financial stability

Rooftop solar poses challenge to power regulators

State regulators must get Discoms to make demand projection for peaks, and procure and price power accordingly

Ajay Shankar

The goal of creating 500 GW of fossil fuel free capacity by 2030 appears within reach. This needs large scale storage to absorb excess solar power generation in the day and to supply it at night.

As the share of electricity from renewables and storage begins to increase vis-a-vis flexible thermal power, the nature of distribution would undergo a transformation. The State Electricity Regulatory Commissions have a pivotal role in ensuring that this transition is smooth.

A decision on the rate at which solar power would be bought by the Distribution Companies (Discoms) from the solar power generated by its consumers is an immediate need. The PM’s roof top solar panel programme for one crore households requires purchase by the Discom of the surplus solar power that is not consumed in the day.

Under the Kusum programme for provision of solar panels and energy efficient pumps to farmers for irrigation, surplus power has to be purchased by the Discom. The ongoing solar roof top programme provides for net metering. The Discoms resist net metering as they not only lose revenue from their highest

rate paying cross subsidising consumer, but have to buy his surplus solar power at this high rate.

The household with a solar panel under PM’s programme would get a much lower rate under net metering as his tariff would be at the lowest slab. It would be unsustainable to have different rates for the purchase of solar power by the same Discom, with the wealthier consumers getting a higher rate.

SOLAR RATE The State Commissions should instead determine one rate for the purchase of solar power by Discoms. The rate should be one which is less than the cost of supply of the Discom making it financially beneficial for them to buy solar power.

At the same time it should be high enough to give an attractive return on the investment for installing solar panels. This is feasible as solar power has become so cheap.

Reliable 24x7 quality power supply is becoming a reality; no power cuts when demand soars for irrigation, or, when there is a demand spike for air conditioning loads in the summer heat. To provide reliable supply, Discoms have been entering into long-term Power Purchase Agreements (PPAs) with new thermal plants. This has been extended



GREEN POWER. Solar challenge KUMAR SS

to renewable energy projects of solar and wind power.

A major change is now needed. It is time for the State Regulators to get Discoms to undertake demand projections for daily and seasonal peaks. They would, going forward, need to arrange for peaking power separately (separate PPAs). Separate procurement would result in optimising power purchase costs.

Discoms could, alternatively, buy storage capacities and use the power available to them during the day under existing PPAs (during off-peak hours) for storage to meet their peaking power needs. This would be cheaper as a higher capacity utilisation of the thermal plants, with whom they have long-term

the government’s ‘inayete nazar’ or benevolent eye. The RBI board is such a toothless body that, hold your breath, when it met two days after the government nationalised 14 private banks in 1969, it didn’t discuss the matter. Things have improved since then but we don’t know by how much.

So here’s what I think should happen if the RBI has to do its duty better: private shareholding must be allowed and the board must have private directors. There is absolutely no reason to believe that a fully government-controlled RBI and fully government appointed board will reach better decisions than one that has private shareholders and directors.

There are two major things that a central bank does: it controls money supply and thus does the second thing, it controls interest rates. But if you have the government owning the central bank and also being the biggest borrower, what you get is a persistent tussle over interest rates which are often too high or too low.

A very senior RBI officer, now retired, once asked this question: “Thakrasyaadhaaram Ghatam vaa Ghatasyaadhaaram Thakram:” That is, is the curd dependent on the pot for its existence or does the pot get value addition because it contains the curd?

One could, likewise, ask if a central bank functions better because the government owns it or is it the government that benefits because it owns the bank. I think we know the answer to that one.

Courage under fire

A banker’s remarkable story of triumph

BOOK REVIEW.

S Adikesavan

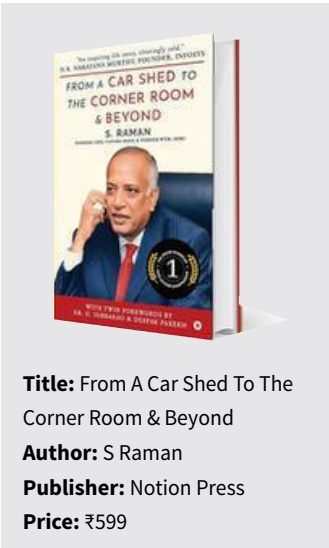
Damned if you do, damned if you don’t — the plight of a public sector banker is unenviable, especially when it comes to decision-making in high value credit. Stories are legion of officers hauled over the coals for having been part of credit decisions because a “fraud” was declared subsequently. S Raman, who retired as Chairman and Managing Director of Canara Bank, and as a wholetime Member of the board of SEBI, rose to the top, having started his career as a clerk with SBI. Within two years, he was selected as a direct recruit officer in Bank of India and rose meteorically to be an Executive Director in Union Bank and then as CMD of Canara. He hails from a middle class Tamil family in Hyderabad.

As occupational hazards go, Raman’s hardships started in 2018, years after he retired. He was chairman of the credit committee in 2011 and 2012 when the credit facilities to Winsome Jewellery were renewed. The bank’s share in the consortium limits was only 7.5 per cent. The loan became an NPA and the case went to the CBI. After a round of questioning, in June 2018, the TV channels reported that Raman had been “booked”.

NO OFFICIAL WORD

A look-out notice followed barring his travel abroad though no case is registered against him. Eight other bank officials charge sheeted in that case stand acquitted. But Raman’s clouds are yet to lift as there is no official word from the agencies. Meanwhile, he also had to cope with the loss of his only son. From *A Car shed to the Corner room and Beyond*, is more than a personal memoir, it is an exploration of the intricate dance between personal integrity, professional challenges and the systemic issues of the financial world.

There is no area of work as “risky” as the high-value loans section in banks. Many upright officers are spending time in the corridors of CBI/other courts for the “crime” of having been part of the loan sanctioning/monitoring process, either as accused or as witnesses. Raman’s autobiography is one every public servant can relate to. Just recall



Title: From A Car Shed To The Corner Room & Beyond
Author: S Raman
Publisher: Notion Press
Price: ₹599

the case of HC Gupta, former coal secretary, whose case has been termed as a “Shakespearean tragedy”. Acknowledged by colleagues as one with a lily-white reputation, Gupta got charged for “corruption” under the provisions of the Prevention of Corruption Act. Raman’s problem pales in comparison. The narration is linear and continuous, philosophical and covers all details of his illustrious career spanning 46 years. The years spent with banks and the various assignments have a familiar ring to them. There are unique vignettes like the operations of Bank of India in Jersey, a Crown-dependent self-governing island country, the home too of the popular Jersey cow.

But it is as whole-time member of SEBI that Raman came into his own. In charge of FPI and Investment Schemes, he played a stellar role in developing a stable and strong regulatory structure for PPI investments, constructive changes to support the growth of the mutual fund industry and tackling issues under the Collective Investment Schemes.

As you finish reading this book, the picture that emerges is of a home-grown finance sector expert who remains rooted to his origins. In September 2012, when he was heading Canara, he made a visit, wife in tow, to SBI, Hospet, the branch where he started off at age 19. You get an idea of the author and his values from this singular episode. You cannot put down the “tale of this remarkable story-teller and his remarkable story” (to quote D Subba Rao from the preface)” without wishing a quietus to his time of troubles.

The reviewer is a commentator on banking and finance.

Many a twist in India-China ties

The book explains in detail why New Delhi and Beijing do what they do and why they at times pull in different directions

BOOK REVIEW.

Sridhar Krishnaswami

No one is under any illusion and nothing comes as a surprise anymore in the realm of international affairs when it comes to India and China. Gone are the days of simple characterisations of bilateral relations or for a continual blame game on political leaders of the present to what happened some six or seven decades ago. Whether it is East Asia, South Asia or the Indo Pacific, by and large there is a realisation that the two giants India and China are going to be major players, at times even at cross purposes, for the simple reason that each is going to be weighed down only by its own national interests.

Even if *Beyond Binaries* starts with 2008, Shastri Ramchandaran has done a fine job weaving the disparate elements of geography, culture, civilization, economics and geo-politics to explain why New Delhi and Beijing do what they do or why at times are pulled in different directions, some of which end up in confrontations.

At the same time, as Ramchandaran carefully tries to explain, there is more to India-China relations than explained away as an either-or choice. As Shyam Saran, former Foreign Secretary, puts it in the foreword, “These are civilizational states and history and tradition continue to provide the prism through which they perceive and interact with the world around them, shaping it in ways that are not yet clear.”

On the face if it, the strength of the book would seem to come from the fashion in which the author has sought to keep attention of the reader focusing on the way India and China were;

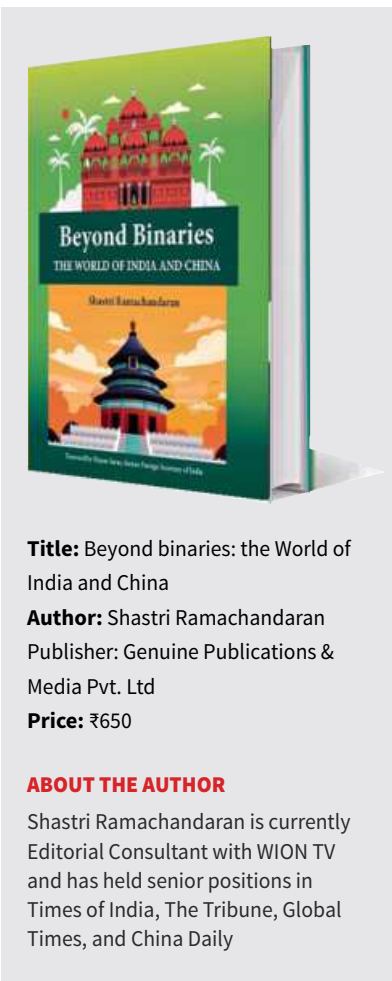
cooperation and conflict; Asian giants at play; China on the global stage; the differences between the Indian and Chinese media and well as the role of China’s media, the state and think tanks as they went about defining the respective agendas. In fact, the real source of interest in reading comes from Ramchandaran’s unique position as a journalist with wide experience not only in India but one who has also seen the “other” side intimately by being in various senior positions in Chinese media outlets and publications.

MULTI-DIMENSIONAL VIEWS
The ability to present different explanations as opposed to routine references of “aggression” runs through this work.

In other words Ramchandaran makes the reader think as to where China is “coming from” instead of mechanically looking at a uni-dimensional perspective. In fact, several academics and journalists routinely posit the view that New Delhi “still” has not learnt anything from the so-called two-faced Chinese behaviours of the 1950s leading to the 1962 debacle and war. But as the author so eloquently points out at different times, there could be several factors at work instead of routinely looking at China grabbing more land.

The case in point that Ramchandaran explains, for instance, has to do with the crisis at Doklam in 2017 followed by a bloody confrontation at the Galwan Valley in 2020 with many on the outside still searching for definitive answers on what propelled Beijing to embark on such actions.

On the Galwan clashes the author makes several interesting observations as to what factors may have contributed to China’s military provocation. It could



Title: Beyond binaries: the World of India and China
Author: Shastri Ramchandaran
Publisher: Genuine Publications & Media Pvt. Ltd
Price: ₹650

ABOUT THE AUTHOR

Shastri Ramchandaran is currently Editorial Consultant with WION TV and has held senior positions in Times of India, The Tribune, Global Times, and China Daily

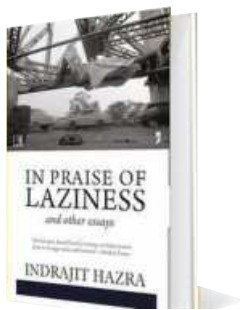
have been because of India’s deepening ties with the US, role in the Quad, opposition to the Belt and Road Initiative or its ambitions for supremacy in Asia; or all of these. “More than any or all of these, China’s provocative military attack could well have been to establish deterrence against India. This is a possible, and plausible, reason,” the author observes.

NEW READS.

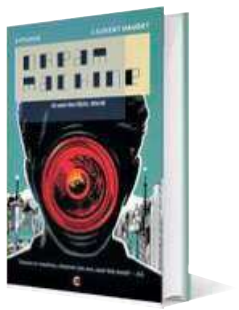


Title: The Rumbling Earth: The Story of Indian Earthquakes
Authors: CP Rajendra and Kusala Rajendran
Publisher: Vintage

The book takes the readers to some exciting parts of India to show how earthquakes change the topography.



Title: In Praise of Laziness and Other Essays
Author: Indrajit Hazra
Publisher: Simon & Schuster India
This book is a celebration of what Milan Kundera defined as ‘Mystification: the active form of refusing to take the world seriously’.



Title: Dream Machine: AI and the Real World
Authors: Appupen and Laurent Daudet
Publisher: Context
The book delves deep into the world of AI, what it can and cannot do, and what we can expect from it in the near future.

thehindubusinessline.

TWENTY YEARS AGO TODAY.

April 1, 2004

GDP soars 10.4 pc in 3rd quarter

The economy is seemingly on a roll, with the country's gross domestic product (GDP) registering a 10.4 per cent year-on-year growth during the third quarter of 2003-04. This is over and above the growth rates of 5.7 per cent and 8.4 per cent for the first and second quarters, respectively. The cumulative average growth for April-December 2003, thus, works out to 8.2 per cent, compared with 4.1 per cent for the corresponding three quarters of the previous year.

India is weighing EU textile offer

India is still weighing the European Union's latest offer of 30 per cent increase in quota of textiles and clothing. Sources in the government told *Business Line* that the EU's offer of enhanced quota for India is still being studied and denied any report of it having rejected the offer.

Markets end fiscal 2003-04 on positive note

The bourses went up on Wednesday marking the end of the financial year on a positive note. The BSE Sensex gained 70 points to close at 5590.60. On the National Stock Exchange, the S&P Nifty closed at 1771, a 1.24 per cent gain over Tuesday's close.

Short take

A pitch for election tourism

S Sarath

In a democratic nation, the voice of the people serves as the cornerstone of governance. The upcoming Lok Sabha elections are poised to be historically significant, with an estimated 960 million voters and nearly 62 political parties contending for 543 seats. There's also a growing interest in exploring the potential for commercialising it as a tourist attraction.

INITIAL PITCH

Election tourism has a significant historical background, with its inception credited to the Ahmedabad-based firm,

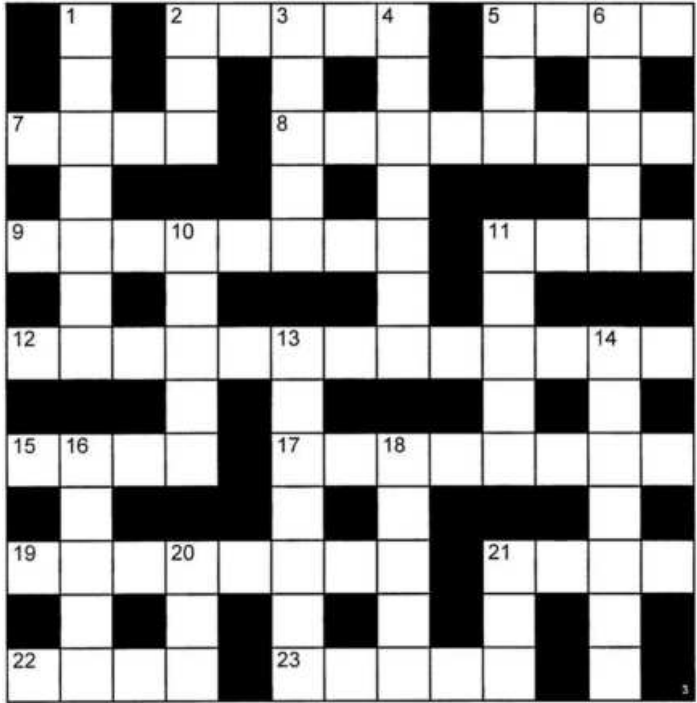
Election Tourism India, which pioneered the concept during the Gujarat assembly polls in 2012. Inspired by Mexico's Poll Tourism of 2005, Chairman Manish Sharma introduced this innovative venture. Following a successful debut in Gujarat, the firm continued to thrive, notably during the 2014 and 2019 parliamentary elections. According to data from Election Tourism India, approximately 8,000 tourists from the US, China, Nepal, UAE, Australia, Ukraine, Japan, Germany, and France visited India during the last parliamentary elections. These tourists hailed from diverse backgrounds such as students, journalists, researchers, women's groups and enthusiasts of history and

culture. As part of the election tour, the firm organized visits to rallies held by rural and regional candidates, coupled with interactive sessions with political leaders, as part of their six-night, seven-day election tourism package. Tourists seized the opportunity to engage with election candidates, gaining insights into campaign strategies and election-related issues. Beyond the electoral process, tourists also immersed themselves in India's rich heritage, traditions and culture, enhancing their overall experience. **ELECTION FESTIVAL** Election tourism provides valuable insight into public sentiment regarding candidates and political parties. During

elections political advocacy agencies get involved in shaping strategies for leaders and parties. These agencies offer detailed reports advising on which constituencies to contest, campaign locations, and message articulation, thus influencing the electoral landscape. There are instances where electoral processes fail to fully reflect the will of the populace. This is often observed in the formation of alliances between political parties before and after elections, as well as in the trading of political favours. Yet, the show of democracy goes on.

The writer is Assistant Professor, NITTE School of Management, Bangalore

BL TWO-WAY CROSSWORD 2407



EASY

ACROSS

- 02. Was painful (5)
- 05. Pass through sieve (4)
- 07. Apiary (4)
- 08. Sweetmeat on stick (8)
- 09. Situation for boffins (4-4)
- 11. Terminates (4)
- 12. Picture takers (13)
- 15. Settles bill (4)
- 17. Still, despite everything (5,3)
- 19. Constraint (8)
- 21. Inevitable destiny (4)
- 22. Large aquatic bird (4)
- 23. Unsuccessful competitor (5)

DOWN

- 01. Tombstone inscription (7)
- 02. Is plural (3)
- 03. Word of greeting (5)
- 04. Predicament (7)
- 05. Move over snow (3)
- 06. Inundate (5)
- 10. Flying toys (5)
- 11. Anaesthetic (5)
- 13. A little at a time (7)
- 14. With family tie (7)
- 16. Dart (5)
- 18. Large plants (5)
- 20. Male child (3)
- 21. In favour of (3)

NOT SO EASY

ACROSS

- 02. Was painfully aware of type of current he'd followed (5)
- 05. Go through the evidence if found in the street (4)
- 07. Singular form of nettlerash bees are at home to? (4)
- 08. Lounge about with one soft drink and stick to the sweet (8)
- 09. Not the front parlour to do important things in secretly (4-4)
- 11. Reverend synod has to have such objectives (4)
- 12. People with taking ways you get the picture? (13)
- 15. It has its reward? Yes, in afterthought (4)
- 17. When everyone else has gone, nevertheless (5,3)
- 19. The papers don't begin to cure what barometer shows (8)
- 21. The inevitable end, one of three known to the Greeks (4)
- 22. 'I will play the _____, And die in music' (Othello) (4)
- 23. Not being on winning side, he switches roles (5)

DOWN

- 01. Final words: half keep it with no Greek graph (7)
- 02. Continental land measure is plural in form (3)
- 03. Half lop ends off first word (5)
- 04. Unfortunately I'm lamed, an impossible predicament (7)
- 05. Go in for winter sport and lose control endlessly (3)
- 06. Over-liquidity of old potentially (5)
- 10. Accommodation cheques may have strings attached (5)
- 11. The Queen takes in the clear upper air (5)
- 13. Crumpled rag finishes with a double, but not all at once (7)
- 14. Told how one had blood ties (7)
- 16. A pointer from Fletcher (5)
- 18. Boot stiffeners for which wood can't be seen, they say (5)
- 20. Among Poles, ring for a boy (3)
- 21. Because it's in favour! (3)

SOLUTION: BL TWO-WAY CROSSWORD 2406

ACROSS 1. Roman candles 8. Averages 9. Bile 11. Upset 12. Picture 13. Ally 15. Deep 19. Tonsure 20. Outdo 22. Rota 23. Confetti 24. Rocking-chair
DOWN 2. Opens 3. Awaits 4. Creeps 5. Leisure 6. Stereophonic 7. Manufacturer 10. Ice 14. Lunatic 16. Bun 17. Belong 18. Loofah 21. Tutti

ON THE CAMPAIGN TRAIL.

It's IPL season and the volume of ads has gone up. It also means CRED is back with its signature disruptive ads. It's also poll season and there is fair buzz around political ads.

Different strokes

CRED has served up an ace of an ad this cricket season getting Leander Paes to show off his forehand, his backhand and solid serve in a hilarious setting. His opponents — pesky mosquitoes. The champion acted so well that none other than tennis legend Andre Agassi took to social media to praise it. A great coup for the brand pushing its new UPI features. It also served a second round of wit and whimsy with Ila Arun, who has to choose to become the side-eyed soundtrack to high-society gossip or upgrade the way she pays.

A sweet homage

Cadbury Dairy Milk breaks through the cricket clutter by paying sweet homage to the unsung heroes behind the success of cricket stars. Its #ThankYouFirstCoach campaign shines a spotlight on the mentors of Surya Kumar of Mumbai Indians and KL Rahul of Lucknow SuperGiants, who played pivotal roles in shaping their careers. Created by Ogilvy, the films are highly emotive and the brand is following through offline by extending an exclusive invitation to the first coaches of every IPL player to join them in the family box during matches.

Tech for good

Dell's new 'Back to School and College' campaign, highlights how the PC can be a transformative tool and help social change. The two brand films — "Lamps" and "Mountains" — tell the stories of three students who come up with novel solutions to pressing subjects. The first film shows how a young boy along with his friends helps children in rural communities get access to light. Using Dell's G15 laptop, the boy creates a design for handmade solar lamps and presents the lamps to the children. The second film highlights a young girl who understands the power of teamwork to address the issue of piling up waste in the mountains. The films have been conceptualised and developed by VML.

Finding the groom

BJP has got first off the block when it comes to election campaign ads. Its *Dulha Kaun Hai* ad lampooning the INDIA alliance has gone viral. The video features lookalikes of key members of the opposition alliance and while it pokes fun, there is an entertainment quotient too in the film. It appears to be a strategy to appeal to the young voters. The BJP had chosen McCann World Group and Scarecrow M&C Saatchi as its creative agencies but reports suggest this film has been made by a different independent agency.

NUGGETS.

Aman Mannan and Shitu Patil join as NCDs at Publicis

Publicis India is ramping up its creative leadership. It has appointed Aman Mannan and Shitu Patil as joint National Creative Directors (NCDs). The duo will lead the creative vision for all brands at Publicis India, and report to Managing Director, Oindrila Roy. Mannan has nearly 25 years of experience across leading agencies such as Interface Communication, McCann Erickson, DDB Mudra Group and Leo Burnett India. Patil has 23 years of advertising and branding experience and has worked with Lowe Lintas, FCB and Publicis Ambience. She also successfully ran her own design agency, Plus One.

YKONE buys Barcode

International influencer marketing agency YKONE has announced it is acquiring 70 per cent stake in Indian content and influencer marketing agency Barcode. For the Paris headquartered YKONE, founded in 2008 which has a turnover of close to \$100 million, the acquisition is strategic, especially as it has a big play in luxury segment. Given that India's luxury market is expected to be one of the fastest-growing markets in the world and could reach \$200 billion, YKONE sees opportunity in the country. Olivier Billon, Founder and CEO of YKONE, stated: "The acquisition of Barcode Agency is a significant step for YKONE and its international expansion. YKONE already had a presence in India with an office in Bangalore since 2017. With the addition of Barcode's operations in India, YKONE's reach in the country and the broader Asia-Pacific region expands even further."

STAR CREATORS

The magic formula of celeb-owned brands

STRIKING GOLD. Bollywood's entrepreneurial leap is seeing stars use their fame and influence to co-create winning brands

Meenakshi Verma Ambwani

Guess who is hitting the jackpot on India's start-up street? Their films might be hit or miss, but Bollywood celebrities are finding huge success with the brands they are co-creating. Take Katrina Kaif, who teamed up with beauty and lifestyle retailer, Nykaa, to launch Kay Beauty in 2019. Nearly 1.5 million consumers have bought the products of this brand so far. Earlier this month, Falguni Nayar, Executive Chairperson, Founder and CEO of Nykaa, pointed out that Kay Beauty was the "third-most searched" direct-to-consumer brand on the platform and also among "the top three brands at Nykaa's stores". She said, "Kay Beauty is expected to grow at the rate of 62 per cent after a robust year of expansion into new doors (retail stores)." Nayar said that the brand was created by Katrina Kaif and Nykaa, to "bridge the gap between high glamour and care." With a 1.4 million-strong Instagram community, the brand's lip oils were sold out in one day demonstrating its prowess in bringing international trends to the forefront, she added.

WINNING PARTNERSHIPS Equally sweet has been the brand outing of Kareena Kapoor Khan. Last year, she formed a strategic partnership with SUGAR Cosmetics founders Vineeta Singh & Kaushik Mukherjee to launch a premium Korean skincare brand, Quench Botanics. Kaushik Mukherjee, Director, Quench Botanics told *brandline*, "When the superstar and beauty icon Kareena Kapoor Khan loved the Quench products, she came on board as a co-owner and investor, affirming faith in the brand. Sales



REDEFINING GLAMOUR. (Clockwise from left) Kids wear from Zip Zap Zoom, MyGlamm's POUT, Kareena Kapoor with SUGAR cosmetics founders, Florence by Mills and lipsticks from Manish Malhotra Beauty

have more than doubled for quarter-on-quarter. A substantial increase in the follower base was also observed on our Instagram platform. Associating with her has helped step up the brand's awareness and reach significantly amongst consumers." Mukherjee pointed out that Quench Botanics' proposition of accessible Korean skincare tailored for Indian skin and weather conditions resonated well with consumers. According to Sukhleen Aneja, CEO, Good Brands Co, Good Glamm Group, celeb-led brands are thriving in today's beauty market as they gain instant recognition and recall. "We partnered with Manish Malhotra in 2018 to create and launch Manish Malhotra Beauty by MyGlamm, which has become one of the latest luxury

makeup brands of India. These kinds of partnerships enable us to tap into diverse consumer segments and engage with them in innovative ways gaining access to their loyal fan bases," she says. Besides co-creating a brand, the beauty major has also come up with celeb-anchored limited-edition collections and exclusive launches. "Our most recent launch of the MyGlamm POUT collection in partnership with Karan Johar in December 2023 was a huge success and has gone on to be the No 1 best-selling lipstick for MyGlamm on platforms like Amazon," she added. For film stars, feted for their looks, it's natural to segue into the booming beauty industry and the associations with new age start-ups is paying off. Nayar said as India's per capita income rises from \$2,500 today to

\$5,500 by 2030, it is projected that the BPC (beauty and personal care) per capita spend will go from \$15 today to \$50 by 2030 in India.

BUSINESS ACUMEN None of these are vanity projects; they are raking in the moolah, backed by large communities of loyal fans. In fact some of these ventures are backed by VCs and angel investors. Take for instance, Deepika Padukone's "self-care" brand 82°E, which raised \$7.5 million in seed funding in early 2022. DSG Consumer Partners and IDEO Ventures along with other angel investors participated in the round. And just last month, the brand — which has a presence in the body care and women skincare segment — expanded into the men's skincare category. But celebs aren't restricting

WFB Baird, stitching a growth story for linen

V Sajeew Kumar

Bought a Ralph Lauren linen shirt? Or one from Tommy Hilfiger? Chances are the linen would have been made in Kerala by an Irish linen company WFB Baird and Co. The Irish company that dates back to 1912 is one of the world's oldest linen makers in the world and has been manufacturing in India since 2005, as an export oriented unit (EoU). Its three factories, spread across Kochi and Erode, supply to global brands and retailers. But now the largely B2B player is upping its domestic focus with its own brand Burgoyne. William James Burgoyne Baird, the fourth generation scion of the founder of the premium Irish linen



IRISH CONNECTION. William James Burgoyne Baird and the factory in Kochi

brand and current chairman was recently in Kochi. He talked about the growing fascination for white linen shirts in the Indian market and how it spelt opportunity for manufacturers. "We came to India in 2005 only to

set up a 100 per cent EoU. Seeing India as a huge market for linen, we entered the domestic market around 10 years back and have been growing. We are now in the process of introducing an affordable fabric blended with linen and plan to sell

the brand through e-commerce route. To increase the product visibility, the company will soon have its physical presence in all the metro cities," said Baird. Suchitra Menon, Director and CEO of the company said that Burgoyne is now present in at least 3,000 stores across the country. In the B2B business, the company supplies linen fabric globally to premium retailers like Ralph Lauren, Polo, Banana Republic, Levis, Uniqlo, Tommy Hilfiger, Calvin Klein and Marks & Spencer. In India, it supplies to players like Madura, Arvind Brands, Blackberry, Benetton, Pepe, Reliance, Mynta and Rare Rabbit. But why did the Irish brand choose India as a manufacturing location? It was late Captain Krishnan Nair of the Leela Group who was instrumental in bringing the

company to Kerala. He helped set up its first plant in Cochin Special Economic Zone. "When we started off, the business was \$10 million that too purely B2B. Later we ventured into domestic business with our own brand Burgoyne and the group revenue is expected to touch \$100 million by the end of the current fiscal," reveals Baird. He adds, "We are also looking at widening our customer base into new geographies including Australia, South America and the Far East as part of global expansion." The global linen market size is estimated to be worth \$806.7 million in 2022 and forecast to reach \$1,525.3 million by 2028 according to industry reports. While Europe is traditionally the big linen consumption market, India is the fastest growing. Burgoyne is in the right place — if it can thread its way well.

Broken glass, expensive bananas and moment marketing

The art of creating topical marketing campaigns that leverage special moments

THE CURIOUS MARKETER
HARISH BHAT

My favourite marketing moment of the recently concluded Tata Women's Premier League (WPL) came when Ellyse Perry, playing for team RCB, hit a huge shot that broke the window glass of the Tata Punch.ev car displayed near the boundary of the stadium. By doing this she shattered yet another glass ceiling, in the midst of a tournament which is proving to be an inflection point for women's sports in India. PERRY POWERFUL PUNCH The Tata Punch.ev team promptly capitalised on this totally unplanned moment. They immortalised the event by taking the same broken window glass, adding a bolt to it to represent the electric spirit of the game and gifting the framed broken glass to Ellyse Perry. Below the frame, they added the lovely phrase — "#Perry Powerful Punch". This was a smart marketing move that took the internet by storm. In fact, it got this electric vehicle the kind of positive attention that no paid advertising campaign could have delivered.



BREAKING THE GLASS CEILING. RCB's Ellyse Perry receives from Vivek Srivatsa, Chief Commercial Officer, Tata Motors, a frame of the window glass pieces of the Tata Punch.ev that her huge, lofted shot to the boundary broke in a WPL match against Mumbai Indians SPECIAL ARRANGEMENT

which is already on top of the consumer's mind. When a brand brings a novel perspective to this very same subject — sometimes witty or humorous, at other times a gracious tribute — people love it. In today's era of social media, moment marketing is perhaps also one of the most cost-effective methods of mass marketing. This is because a social media campaign that capitalises on a trending topic in a very interesting manner can spread like wildfire at no cost. In fact, if it catches the imagination, there is the possibility of users generating their own re-

lated content which can amplify the core campaign. IMPORTANT TO PREPARE Moment marketing is often a spontaneous response to an unanticipated occurrence. At other times, it could leverage a festival or an event that is pre-planned. Either way, if marketing teams wish to make moment marketing a way of life, then some preparation would be important. First, the team has to keep its ears close to the ground, to quickly identify moments which can be

seized by the brand. It would be useful for the team to proactively list out the kind of opportunities which are a best fit for their particular brand, so that their listening can then focus on specific channels. Second, teams may wish to brainstorm possible wild-card scenarios, and what their brand's response would be, in each such situation. While these scenarios may never actually come about, the brainstorming exercise is likely to sensitise team members to the possibilities and the range of responses. Third, moment marketing requires brands to empower their front-line social media teams and communication agencies, particularly because such campaigns have to be executed very quickly before the moment goes stale. Such an empowered approach also requires a proper set of guardrails to be defined, to ensure that sensitive topics are handled appropriately. Finally, successful moment marketing requires a constant stream of new, interesting and appealing topical ideas. A marketing team with a high creative quotient and a penchant for offbeat ideas is the most important ingredient in making this happen.

Harish Bhat is an avid marketer and bestselling author. He was formerly Brand Custodian at Tata Sons. These are his personal views.

FROM THE LABS.

Better switch than a transistor

Scientists have developed a synthetic material design that can control the temperature at which a material can overcome electronic ‘traffic jams’ — a transition from an electrical insulator to a conductor, setting the ground for an electronic switch that is more efficient than a transistor.

Generally, most commonly encountered materials are either electrical conductors (such as copper or aluminium) or electrical insulators (such as plastic and paper). Correlated electron materials are such a class of materials which undergo an electronic transition from an insulator to a metal. However, these transitions work as a function of temperature making them less useful in devices such as an electronic switch that usually operate at a constant temperature. Further, these transitions occur at a temperature that might not be relevant for room temperature operation.

Scientists at IISc, in collaboration with scientists from Japan, Denmark and the US have proposed a synthetic material design that enables them to control the temperature at which the transition occurs. The teams of scientists, which includes Prof Naga Phani and his colleagues at the solid state and structural chemistry unit, at IISc Bangalore, proposed and demonstrated a three-layer structure. It comprises of an ‘active’ channel layer that undergoes the metal to insulator transition, a charge reservoir layer that can ‘drip’ electrons into the active layer and control the temperature at which the transition occurs, a charge-regulating spacer layer between the active layer and the reservoir layer which regulates the flow (or ‘drip’) of electrons from the reservoir layer to the active layer.

Preparing nanometer-thick atomically smooth layers of these materials is critical for the success of this work. Such thin layers are prepared by a technique called pulsed laser deposition which allows atomic layer control on the preparation of these layers — in effect this is similar to spray-painting with atoms. “The researchers used an atomic force microscope (AFM) for qualifying the quality of their layers. The authors performed extensive AFM studies to arrive at the right conditions (such as temperature, pressure, growth rate) for developing this synthetic stack of materials,” says a press release.

Pine needles as fuel

Pine needles are a problem — they cover the ground, disallowing other plants to grow, while themselves not decaying easily.

However, they can be a solution too. The Indian Petroleum Institute, Dehradun, has developed an improved technology for briquetting of Pine

Needles and an energy-efficient, low-cost, natural draft biomass cookstove. The biomass cookstove works with Pine Needles briquettes at an energy efficiency of 35 per cent and reduces household pollution by 70 per cent. In addition, the CSIR — Indian Institute of Petroleum is a laboratory designated to certify biomass pellets for use in thermal power plants. The laboratory has advanced facilities for the biomass characterisation and evaluation of biomass combustion equipment. IIP will implement two major technologies at the grassroots level in Champawat. The selected technologies include a briquetting unit with a capacity of 50 kg per hour based on Pine Needles and 500 units of Improved Cookstoves for rural households. An extended field trial study will be conducted regarding energy conservation and its environmental impact. The briquetting unit will be established in the Energy Park in Champawat as a part of the Women Empowerment initiative. The briquettes produced will be used as fuel in homes and local industries.

● DECODING DIGITAL MARKETPLACE

Navigating information asymmetry with AI

DATA BROKERS. AI agents help negotiate in the ‘information bazaar’, where bytes meet budgets and knowledge becomes currency

N Nagaraj

The decision to buy an information product — for example, a research report on private equity and venture capital funding for a new technology area — can be fraught with danger, largely due to the information asymmetry for that product. One does not want to plonk one’s money down for an expensive report unless one knows whether that report will fulfill one’s needs.

This is called the “buyer’s information paradox”: buyers need to inspect information to assess its value, but sellers must restrict access to prevent theft. A recent paper, “Language models can reduce asymmetry in information markets” by Nasim Rahaman, Martin Weiss et al, addresses this problem by positing an open-source digital marketplace simulation where intelligent agents — powered by language models (LLMs) — buy and sell information on behalf of participants. The study employed various LLMs to find out how inspection influences buying decisions, how pricing affects demand and the overall quality of outcomes based on budget sizes and the ability to preview information.

THE INFORMATION BAZAAR

The paper presents a simulated digital marketplace called “The Information Bazaar” with two main types of agents: buyers and vendors. Buyer agents are appointed by principals and have specific questions to answer and a budget to work with. Vendor agents represent content providers who have a repository of documents they are willing to sell access to.

The marketplace is designed to allow buyer agents to peruse information without a binding commitment to purchase, enabling



UNEQUAL ACCESS. While advancing tech offers opportunities for widespread dissemination of information, the digital divide is still significant, where access to valuable information is unequal

them to explore the information landscape effectively. They start by posting tenders on a Bulletin Board, which are requests for specific information. Vendor agents assess these tenders and respond with quotes, which are priced information offers. Buyer agents then evaluate the quotes received from the vendors and decide whether to purchase specific information or not. If they choose not to purchase certain information, they immediately forget it, ensuring that only purchased information is retained for further use.

The cycle of posting tenders, receiving and assessing quotes and potentially purchasing information or forgetting information continues until buyer agents compile satisfactory answers, exhaust their budget or reach a pre-set limit in the

marketplace.

Buyer agents thus synthesise comprehensive answers for their principals using only the information they have purchased in the marketplace. This ensures that the answers provided are based on relevant and valuable information.

Coming back to our example of buying a research report for PE/VC investment, what one would do is to define the question(s) that we want answers for and give our buying agent a budget and simply let our rep “negotiate” to effectively answer all our questions, on budget. If we had such a marketplace with multiple sources of information, we could go so far as to bring together information from multiple reports and sources to complete our analysis.

To go deeper into the foundational aspects of the challenge that

this paper intends to address, look into Akerlof’s 1970 paper “The Market for Lemons: Quality uncertainty and the market mechanism”. The methodology of buying and selling agents take into consideration critical aspects of signalling theory and screening theory.

The Information Bazaar is implemented in Python, utilising the mesa library for agent-based modelling.

CHALLENGES

People who have dealt with information markets know that the most fundamental issue is information asymmetry, where one party in a transaction has more or better information than the other. Other challenges include concerns around non-excludability (difficult to prevent others from accessing it) and non-rivalry (one person’s consump-

tion does not reduce its availability to others) in the form of digital rights and intellectual property.

On the seller side, determining the value and setting a price for information goods is inherently difficult because their value can be highly subjective and context-dependent. And on the buyer side, ensuring the quality and trustworthiness of information becomes a challenge in an environment where misinformation, disinformation and low-quality content can proliferate.

Technology plays a part in further complicating an inherently complex market because of the rapid technological advancements, changing consumer preferences and new forms of content consumption. While they offer opportunities for widespread dissemination, there is still a significant digital divide, where access to valuable information is unequal.

POTENTIAL APPLICATIONS

Digital content markets: The findings can be applied to digital content markets, suggesting mechanisms for content discovery and access that balance the interests of content creators and consumers.

Automated negotiation systems: The principles underlying the Information Bazaar could be applied to develop automated negotiation systems, where AI agents negotiate access to information or other resources on behalf of human users.

LLM design and training: The observed behaviours of LLMs as economic actors could influence future LLM designs, promoting rational decision-making and ethical considerations in AI systems.

We value your feedback.
Do send your comments to
quantum@thehindu.co.in

● WOW. DNA’s miracle

Team Quantum

Our understanding of DNA has grown to an extent that scientists are now saying, give me your DNA, I’ll sketch out what you look like.

Scientists at the Fudan University, Shanghai, recently performed this feat. Their raw material was the well-preserved remains of a Chinese emperor, who lived 1,500 years ago.

Historians credit Emperor Wu with unifying northern China — perhaps nature decided to reward that good act by preserving his skull and many bones almost intact — yielding modern scientists a trove of genetic material.

Now, a digital rendering of Wu’s face has been made possible. Working with the ‘single nucleotide polymorphisms’, which contain information about colour of skin and hair, and using the skull, scientists have reconstructed Wu’s face — he had “brown eyes, black hair, dark-to-intermediate skin”.

Not just the face. Scientists have been able to tell how Wu died. It had been supposed previously that he was killed by poisoning, but now an analysis of his DNA has revealed that the man was “at an increased risk for stroke,” according to a statement, based on a scientific paper published in *Current Biology*.

With modern techniques it is now possible to determine what ancient people looked like, according to Pianpian Wei, the paper’s corresponding author.



A digital facial reconstruction of Emperor Wu

● WHEELS OF TOMORROW

How cars are becoming computers on the move

From pistons to pixels, lines of code steer the future of mobility

G Balachandrar

The modern automobile is much more than a wheeled contrivance; it is a moving computer. The quantum of electronics going into the manufacture of a car — already mind-boggling — is growing by the day.

The Nissan Renault Alliance’s technology centre near Chennai employs 4-5 times more than the massive car factory located in the same region. The centre serves Nissan worldwide. At a recent media interaction in Chennai, the CEO of French car maker Renault Group, Luca De Meo, spoke highly of the group’s software teams in India that are working on stuff like connectivity, autonomous driving, artificial intelligence, cloud and augmented reality.

Though the US carmaker Ford had shut down its car manufacturing operations in India, it still employs about 10,000 software folk in its IT operations in Tamil Nadu to support its global car development

programmes. Almost every car OEM has set up tech centres and employs a significant number of people in software.

While the software component of a car is a huge value-addition, there is a lot more coming.

Imagine a car with components that are controlled from a central supercomputing platform instead of dozens of intricately interconnected computer systems — one could easily install updates via Wi-Fi without going to a mechanic and integrate new functions as and when needed.

This is the vision that the Dresden (Germany)-based Fraunhofer Institute for Photonic Microsystems IPMS and some partners from the automotive industry are working towards, as part of a joint research project — CeCaS (Central Car Server — Supercomputing for Automotive). Researchers from these organisations are working to remodel the computer architecture used in cars from the ground up to create a centrally managed system from one



DRIVING INTELLIGENCE. For lighter, faster and smarter cars

computer platform. The idea is to turn cars into supercomputers on wheels, where the components can communicate with each other in real-time.

“The German federal government is supporting the project as part of its initiative for funding research on electronics and software development methods for the digitalisation of automobility. Fraunhofer researchers are focusing on Time-Sensitive Networking for their project and the team is developing its tried-and-tested functional blocks for semiconductors,

called IP cores. The idea is to equip the Ethernet-based network technology with real-time capabilities while making it robust and extremely reliable in all situations,” said Dr Frank Deicke, head of Data Communication and Computing of Fraunhofer Institute.

The computer architecture being developed in the CeCaS project for the car of the future represents a radical departure from current construction methods: from domain-based control of components to zone-based management, where just a few high-performance computing platforms control many modules simultaneously.

The new architecture will also make it possible to update cars without taking them to a mechanic. The cars will be updated via wi-fi, almost like a laptop or desktop PC. The centrally controlled system will also require a narrower cable harness, which will reduce the amount of materials used in manufacturing, and thus lower costs — and make the car significantly lighter overall.

● MASTERSTROKES

The hidden genius of our lungs

N Nagaraj

Scientists have uncovered the secret behind one of nature’s most remarkable designs: the human lung. For years, the asymmetric design of our lungs has puzzled experts. And now, researchers from IIT Madras have found the reason to this asymmetry.

Prof Mahesh Panchagnula, Department of Applied Mechanics and Biomedical Engineering and Debjit Kundu, PhD Research Scholar, IIT Madras delved deep into the architecture of our lung — which unlike a perfectly symmetrical tree, branches out unevenly — to find out why they are designed the way they are.

Through sophisticated mathematical models, the scientists have demonstrated that this seemingly imperfect design is actually a master-stroke in evolutionary engineering, optimised not just for breathing but for protecting us from airborne threats.

PROTECTIVE DESIGN

Says Debjit Kundu: “Take the structure of the lungs. The right lung is larger than the left lung. This is of course to accommodate the heart. However, this asymmetry is seen throughout the structure of the lungs, even down to the airway bifurcation units. This has been suggested to have a functional importance, which we have explored in our research.”

The study modelled how different degrees of asymmetry in lung branching affects its functions. A slight deviation from perfect symmetry enhances the lung’s filtration capability significantly, offering better protection against inhaled pollutants and pathogens at a relatively minor cost to other lung functions.

In essence, nature has designed our lungs to prioritise protection against environmental hazards, reflecting the lung’s role as a critical barrier against airborne diseases.

By constructing geometric models of the lung’s bron-



ASYMMETRY IS KEY. The imperfect design of our lungs shields us from airborne threats

chial trees, the researchers were able to meticulously replicate its asymmetrical branching patterns. The models were grounded in morphometric parameters that helped to capture the essence of lung’s complex structure. Employing deterministic equations, the research team precisely defined the branching angles, diameters and lengths of bronchial segments, providing a realistic and accurate representation of the lungs’ anatomical features.

The investigation into the degree of asymmetry in the bronchial tree sheds light on its significant impact on the airway network’s branching pattern and structure. A crucial aspect of the study involved analysing the cut-off diameter within the bronchial tree, which influences the airflow and particle deposition across the tracheo-bronchial tree. This parameter is key to understanding how the lung’s structure affects its function, particularly in filtering inhaled particles.

Through computational simulations grounded in these geometric models, the researchers explored how varying levels of asymmetry affect functional parameters of the bronchial tree — such as the number of terminal branches, fluidic resistance to breathing, total lung volume and efficiency in particle deposition. These simulations, validated against experimental data, provide insights into the intricate relationship between lung structure and its crucial

functions, including airflow, gas exchange and the filtration of inhaled particles, offering a new perspective on the lung’s evolutionary design optimised for both breathing and defence against airborne threats.

BEYOND THE LAB

The study, published in *Scientific Reports*, opens up promising avenues across multiple disciplines, from clinical practices to public health initiatives. In the realm of respiratory disease research, insights into how lung asymmetry influences particle filtration can deepen our understanding of conditions like asthma, COPD and respiratory infections, paving the way for novel diagnostic and treatment strategies.

Prof Mahesh Panchagnula, said, “A potential application of this work is to understand the acinar ramifications of diseased lung conditions as well as inter-subject variability. The modelling efforts of this study could be a key factor in developing efficient and personalised drug delivery systems in the future”.

The mathematical models and parameters developed through this study also offer tools for biomedical engineering, facilitating the design of advanced respiratory devices. It sheds light on the relationship between air quality and respiratory health, providing critical data for environmental health studies and policy-making aimed at mitigating pollution-related health risks.

BITS & BYTES.

Flying Nairobi flowers to Abu Dhabi



Etihaad Cargo operated the inaugural Astral Aviation Ltd flight from Nairobi to Abu Dhabi in partnership with Astral Aviation and Abu Dhabi Airports. The flight arrived at Zayed International Airport on March 21, following a memorandum of understanding signed between Etihaad Cargo and Astral Aviation, which aims to expand access to the African market. The inaugural flight was timed to accommodate the increased demand for flowers, demonstrating the synergy between Etihaad Cargo's global reach and Astral Aviation's strong African network.

Container index dips by 3%

Drewry's World Container Index decreased by 3 per cent to \$2,929 per 40 ft container during the week ending March 28. Freight rates from Shanghai to New York decreased 6 per cent



or \$318 to \$5,058 per feu. Likewise, rates on New York to Rotterdam and Shanghai to Los Angeles declined 3 per cent to \$637 and \$3,825 per 40ft container, respectively. Rates on Shanghai to Rotterdam, Rotterdam to Shanghai and Shanghai to Genoa dwindled 2 per cent to \$3,159, \$814 and \$3,806 per 40 ft box, respectively. Rates on Los Angeles to Shanghai and Rotterdam to New York shed 1 per cent to \$691 and \$2,261 per feu, respectively. Drewry expects a minor decrease in spot freight rates in the coming week, the global research firm said.

● FEEDBACK

For a foolproof shipyard

The article 'Cochin Shipyard builds on success' (*businessline* dated March 4, 2024) offers an excellent overview of the shipyard and the marine industry.

Cochin Shipyard has excellent infrastructure, good manpower, marketing skill, presence all over India, and the drive to 'Make in India'. But we must analyse what more needs to be done to keep it successful.

India commands less than one per cent of the global shipbuilding (\$140 billion) and ship repair (\$20 billion) markets.

We lack internationally approved design and testing centres, quality ancillary suppliers, and innovative financial models to increase the number of ancillary suppliers.

Shipbuilding and aircraft manufacturing need a foolproof design and testing facility.

India Vision 2030 targets positioning the country among the world's top 10 shipbuilding and ship repair destinations and attracting \$16-billion business. This calls for investing at least \$1.6 billion in research, development and testing.

Cochin Shipyard should take the initiative to develop a marine centre of excellence in Kochi, which is home to Cochin Port, Southern Naval Command, Naval Ship Repair Yard, Central Marine University, College of Naval Architecture, Marine College, National Physical Oceanographic Laboratory, and Central Marine Fisheries Research Institute.

The Indian Register of Shipping can facilitate the development of this centre, much like the DNV has done in Norway.

PI Chacko,
Kochi, Kerala

RE POSTS.

✕ SAGAR AANKALAN Guidelines for National Benchmarking of Indian Ports Performance would be applicable to all Indian seaports with an aim to achieve; Mapping & benchmarking of their logistics performance, Harmonisation of standards, definitions & performance with global benchmarks.

Ministry of Ports, Shipping and Waterways
@shipmin_india

✕ Emphasizing #AAI's commitment to bolstering the Nation's Civil Aviation Infrastructure, the organization has so far invested over ₹3,800 Crores for Engineering Projects at various airports nationwide. This substantial investment will result in elevated Aviation Infrastructure, leading to heightened safety and an enhanced passenger experience.

Airports Authority of India
@AAI_Official

✕ Ensuring the highest safety standards for the #BulletTrain project, anemometers at 14 key locations across Gujarat and Maharashtra will be installed.

Ashwini Vaishnav
@AshwiniVaishnav

Truck rental rates

Rentals for 18-tonne payload

Truck route	Rentals as on		%
	Mar 14	Mar 28	
Delhi-Mumbai-Delhi	1,58,000	1,57,000	-0.64
Delhi-Nagpur-Delhi	1,45,000	1,44,000	-0.69
Delhi-Kolkata-Delhi	1,54,000	1,54,500	0.32
Delhi-Guwahati-Delhi	1,87,000	1,85,000	-1.08
Delhi-Hyderabad-Delhi	1,75,000	1,76,000	0.57
Delhi-Chennai-Delhi	2,15,000	2,13,000	-0.94
Delhi-Bengaluru-Delhi	2,15,000	2,13,000	-0.94
Delhi-Ranchi-Delhi	1,46,000	1,47,500	1.02
Delhi-Raipur-Delhi	1,46,000	1,45,000	-0.69
Delhi-Kandla-Delhi	1,29,000	1,28,000	-0.78
Mumbai-Chennai-Mumbai	1,44,000	1,45,000	0.69
Ludhiana-Hyderabad-Ludhiana	1,93,000	1,92,000	-0.52
Mumbai-Kolkata-Mumbai	2,05,000	2,04,200	-0.39
Chennai-Ahmedabad-Chennai	2,08,000	2,06,000	-0.97
Bengaluru-Kolkata-Bengaluru	1,98,000	1,97,000	-0.51
Bengaluru-Mumbai-Bengaluru	1,18,000	1,20,000	1.67
Delhi-Thiruvananthapuram-Delhi	2,88,000	2,86,000	-0.70
Guwahati-Mumbai-Guwahati	2,67,000	2,68,000	0.37
Nagpur-Chennai-Nagpur	1,45,000	1,44,000	-0.69
Kolkata-Guwahati-Kolkata	1,25,000	1,26,000	0.79
Indore-Delhi-Indore	1,35,000	1,34,000	-0.75
Ahmedabad-Indore-Ahmedabad	79,000	80,000	1.25
Vijayawada-Mumbai-Vijayawada	1,48,000	1,46,500	-1.02
Vijayawada-Kolkata-Vijayawada	1,40,000	1,39,000	-0.72

Figures in ₹

Source: Subham Freight Carriers India Pvt Ltd

● LOADING UP

Adani's shopping spree for ports

NEW CATCH. Acquisitions have powered APSEZ's formidable 25-year growth, with Gopalpur port in Odisha being the latest

TE Raja Simhan

Big gets bigger — that's the story of Adani Ports and Special Economic Zone Ltd (APSEZ), India's largest private port operator, as it continues its dominance all the way from Mundra in Gujarat on the west coast to Kolkata in West Bengal on the east coast. It controls nearly 28 per cent of the country's port volumes, with presence in all the maritime states.

To illustrate, in 2022-23, Indian ports handled 1,433 million tonnes (mt) of cargo — major ports, controlled by the Centre, handled 783 mt and non-major ports, under state governments and private companies, handled 650 mt. APSEZ alone handled 339 mt.

The private giant now targets one billion tonnes by 2030, while aiming to become the world's largest port company, CEO Karan Adani says in its annual report for 2022-23.

After APSEZ's annual installed capacity of over 550 mt, the next largest private port player is JSW Infrastructure at a distant 170 mt.

Over the past 25 years, APSEZ has consolidated its business mainly through acquisitions, with the recent being Gopalpur port in Odisha.

END-TO-END LOGISTICS

Starting off by servicing a vessel at Mundra port on October 7, 1998, the Gujarat company has grown exponentially into an end-to-end logistics solutions provider — from port gate to customer gate.

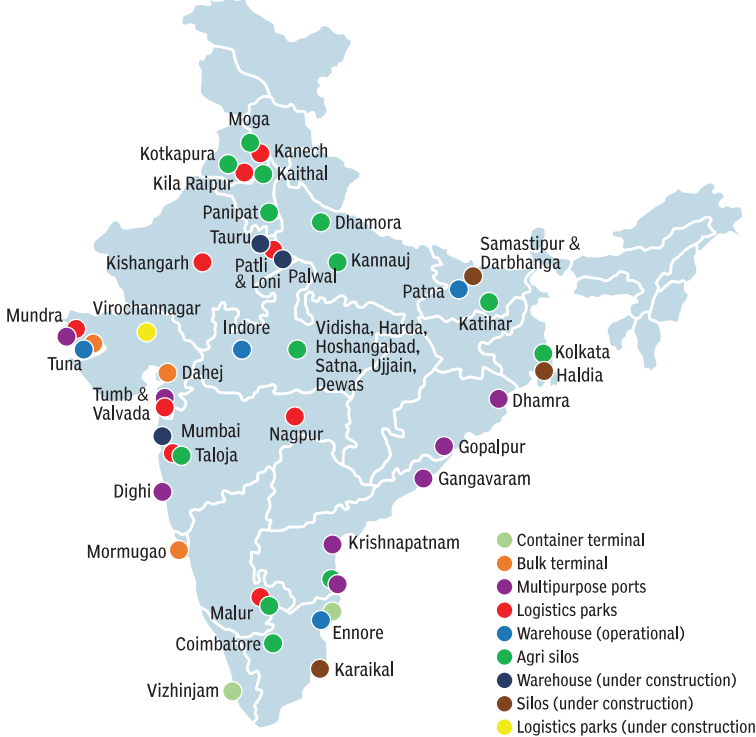
Along the way, it transformed India's port sector, which was hitherto characterised by a single company owning a port and farming out services to vendors. APSEZ was selected to provide an integrated solution as a holistic port-cum-logistics service provider.

Mundra port remains the company's crown jewel, even as it lapped up many more countrywide, along the east and west coasts, giving it coverage over the entire 7,500 km of India's coastline.

Gopalpur port will add 20 mt handling capacity. The Odisha government had earlier awarded a 30-year concession to Gopalpur Port Ltd in 2006, with provision for two 10-year extensions. As a

Adani's shore-to-shore dominance

Charting the spread and growth of the logistics giant Adani Ports and Special Economic Zone in India, with the newly acquired Gopalpur port on the east coast



Source: APSEZ

deep-draft, multi-cargo port, Gopalpur handles a diverse mix of dry bulk cargo, including iron ore, coal, limestone, ilmenite, and alumina.

MARITIME POWER

Besides acquisitions, APSEZ's portfolio of ports includes greenfield development, too, says Jagannarayan Padmanabhan, Senior Director and Global Head of Transport, Logistics and Mobility, CRISIL.

The export-import logistics market has evolved from servicing through standalone assets to owning the entire value chain of customer service. Towards this end, APSEZ has established presence in all the key maritime states on the east and west coasts, he adds.

On the scope for more acquisitions, Padmanabhan says APSEZ still has room

for growth in states like West Bengal and Karnataka, given that more than 150 terminals at major ports are likely to be privatised.

The Maritime India Vision 2030 envisages creating supply-driven maritime infrastructure to help India achieve a \$5-trillion economy by 2027.

Ennarasu Karunesan, global maritime, port and logistics expert, says the Adani group has matched its port operations to global standards.

On fears of looming monopoly with so many ports and terminals under a single company, Karunesan likens it to the situation in the airline sector, where Indigo holds 60 per cent market share. With time and cost being the crucial factors in logistics, cargo will flow to any port that best meets these requirements, irrespective of ownership, he says.

● BOOM-TURNED-BANE

Trampled by overtourism



UNWELCOME ARRIVAL. Cruise lines with their large passenger count add to the tourist rush in Venice



R SATHYANARAYANAN

From animal-driven carriages to jumbo jets and bullet trains, transportation has enabled humans to become borderless globetrotters in the quest for livelihood and leisure alike. Over time, travel for tourism became an end in itself and transformed into a moneyspinner for a whole ecosystem of businesses and local communities.

The robust growth in tourist activity in recent times owes to several factors, including broader coverage of transport networks, cheaper fares, ease of travel booking, social-sharing anxieties, video blogging, and influencer activity. There is also a host of activity-based sub-categories such as wellness, spiritual, historical, ecological, adventure, and bleisure (business plus leisure) tourism, among others.

Amid growing competition, tourist destinations began marketing themselves to attract more visitors and, in turn, economic benefits.

'Pondicherry — Give time a break'
'Kerala — God's own country'
'UP nahi dekha toh India nahi dekha' (If you haven't visited UP, you've missed the real India)
'Goa — A perfect holiday destination'

'Mystical Mizoram: A paradise for everyone'

These are the taglines various Indian states use to attract both domestic and foreign tourists.

However, alongside the spurt in gainful economic activity, many tourist destinations are also grappling with the emerging problem of overtourism.

Overtourism occurs when tourists far exceed the local population of a place or overwhelm its tourist handling capacity. This leads to a deterioration in the residents' quality of life and the natural environment, besides sparking economic hardships such as an increase in cost of living.

PUSHBACK FROM LOCALS

There has been a backlash against overtourism in several countries of Europe and Asia, with the residents demanding curbs on tourist inflow. The so-called 'revenge travel' trend in the post-pandemic period has served to ratchet up tourist arrivals to pre-pandemic levels in many travel hotspots.

Venice (Italy), Dubrovnik (Croatia), Barcelona and Malaga (Spain), Kyoto (Japan), and Phuket (Thailand), among other places, are battling a massive influx of tourists. Malaga residents recently launched a campaign using stickers to tell tourists to leave.

Kyoto plans to introduce express buses with higher ticket fares for tourists to ease traffic congestion. Bullet trains charge extra for oversized baggage. Transport services like Yamato

promote 'hands-free travel', delivering baggage separately for a fee. Places like Bali, Barcelona, and Venice use visitor tax to limit tourist arrivals, with the money used to improve the place.

Cruise lines with their large passenger count push up tourist numbers in places like Venice, leading to unmanageable crowding. Some years ago, there were protests in Venice against the docking of giant cruise ships that lead to overcrowding and environmental pollution. Some cruise lines are focusing on private islands to circumvent this issue.

In a developing country like India, which benefits from the gainful employment generated by tourism, seasonal overtourism is proving a bane in hill stations and pilgrim centres. Measures to counter this include promoting less popular destinations like Lakshadweep islands, which lend themselves to tourism development by cruise lines looking for alternatives to crowded beach resorts. Rather than curbs on tourist activity or a blanket tourism management approach, customised solutions are needed to sustainably tap the tourist potential of each place.

The writer is Sundram Fasteners Associate Professor of Marketing, IFMR Graduate School of Business — Krea University

We value your feedback.
Do send your comments to
bl.logistics@thehindu.co.in

● BEND IN THE ROAD.

NH works pause as netas hit campaign trail



UNFINISHED. Highway projects await poll results

Rishi Ranjan Kala

Despite a brisk pace of road construction during fiscal year 2023-24, the Ministry of Road Transport and Highways is likely to miss its target. It may end FY24 with constructing only 94 per cent of the targeted 13,814 km of national highways (NH).

Moreover, awarding of NH projects also declined year-on-year during April to February in FY24 due to delayed approval of the revised proposal for phase 1 of the Bharatmala Pariyojana (BMP) road development scheme.

The ministry's target includes award of around 10,000 km of NH projects and construction of 12,000-13,000 km of highways in FY24. However, market watchers point out that construction and awarding will be subdued until at least July this year, and may pick up after the culmination of the Lok Sabha elections.

Vinay Kumar G, Vice President and Sector Head-Corporate Ratings of the rating agency ICRA, says the ministry's execution improved by 13 per cent Y-o-Y to 9,088 km in 11 months of FY24, backed by higher spending. Overall execution for FY24 is expected to increase by 11-16 per cent to 11,500-12,000 km.

Awarding of NH projects during 11 months of FY24 declined by around 35 per cent Y-o-Y to 4,872 km.

"ICRA expects the awards to decline to 6,000-6,500 km in FY24, compared to 12,375 km in FY23, due to the delay in the approval of revised cost estimates for BMP and the muted awarding in Q4 FY24 with the model code of conduct in place ahead of the general elections," he says.

He believes the ministry is likely to award NH projects of 10,000-10,500 km in FY25 post the elections.

"Given the adequate order-book of road developers and the continued push for infrastructure development from the government, the pace of road construction is expected to remain strong at 12,000-12,500 km in FY25," he says.

Sankar Subrahmaniyam, co-founder of InCoBAN, an infra-construction improvement ecosystem, says the ministry has adopted a prudent approach, prioritising quality and execution capability over quantity, and introduced the right measures in the project award process. This is a positive development despite the shortfall in meeting the target, he says.

"It is crucial to acknowledge that merely meeting contractual obligations and targets should not be a measure of progress. If contracts are awarded to incompetent parties, the quality of work suffers, leading to temporary results and a loss to the exchequer," he explains.

A decade of triumph: Polio-free India

BY
INVITATION
DEEPAK KAPUR

For decades, public health officials expected India to be the last country on earth to stop the potentially life-threatening and disabling disease of polio. After 23 arduous years of nationwide campaigns led by legions of volunteers and healthcare workers who immunised millions of children against polio in the far reaches of the country, India has defied all odds.

The last poliovirus case was reported in Howrah district, West Bengal in 2011, and three years later, India was officially certified polio-free. This year marks a decade of a polio-free India — one of the country's most profound public health achievements to date.

India's journey to end polio is a battle of sheer scale, a hard-won fight of epic proportions. From misinformation and myths about the polio vaccine to high population density, poor sanitation, and inaccessible terrains, the country has overcome many challenges. In 2009, India was a polio hotspot, accounting for more than 60 per cent of all global polio cases.

India responded with resilience, launching one of the most comprehensive vaccination campaigns in history. Through the pulse polio immunisation programme, the government conducted multiple rounds of national immunisation days, (NID) where every child (upto 5 years) received the polio vaccine. Vaccinating millions of children was arduous for many reasons. During Bihar's seasonal floods, thousands of children were trapped in crowded and unsanitary makeshift camps on small is-



POLIO DROPS. Vaccinating against the odds MUSTAFAH KK

lands surrounded by floodwaters. Although Bihar previously reported the second-highest number of polio cases, healthcare workers were undeterred, reaching stranded children by boat to vaccinate them. Remote terrain was another obstacle — in the hills of Himachal Pradesh and deserts of Rajasthan. Healthcare workers trekked for hours, some rode camels to reach children with the polio vaccine.

The pulse polio programme was backed by India's multi-pronged surveillance network, a highly sensitive laboratory-backed system that monitored the circulation of poliovirus strains.

Even today, over 170 million children are immunised during NIDs, among other things, to ensure India remains polio-free. Ending polio in India was achieved through mass development and distribution of vaccines — made possible through a strategic alliance with the Global Polio Eradication Initiative and its partners.

Given India's proximity to the remaining two polio-endemic countries, it cannot let its guard down and must continue with its polio vaccination activities to sustain population immunity.

The writer is Chairman, Rotary International's India Polio Plus Committee. Views are personal

PLI: Plugging chinks in India's pharma manufacturing armour

HEALING INCENTIVE. Call for simplification of licencing regimes gets louder even as benefits become tangible

Abhishek Law

After 30 years, India will start manufacturing Penicillin G, says Union Health Minister Mansukh Mandaviya, pointing to the success of the Centre's Production Linked Incentive (PLI) scheme for pharmaceuticals and medical devices.

Penicillin G, an antibiotic used to treat infections including pneumonia and syphilis, was manufactured in India till the late 1980s. Imports killed the Penicillin G story, leading to closure of the local plants making the drug. And for that reason, the plans for rebooting Penicillin G's manufacturing augurs well for the industry.

But the PLI scheme is not without rough edges, say pharmaceutical and medical device industry-insiders, calling for simplification of approval and licencing regimes, even as benefits of the scheme become tangible.

A participant in the PLI scheme, Arushi Jain, Director with Akums Drugs and Pharmaceuticals, says the scheme's symbiotic approach integrates India into the global supply chain, nurturing sustained economic growth.

"Participating in the PLI scheme offers numerous benefits in the overall economic expansion," she said, adding that it also promotes a more sustainable development, with direct investments towards labour-intensive sectors.

"PLI incentivises incremental sales, encourages domestic manufacturing and reduces reliance on imports, thereby narrowing trade deficit," she says. It also attracts foreign companies to set up manufacturing units which positions India as an attractive destination for international businesses says Jain.

ENTRY BARRIERS

Medical device makers point to areas that need some ironing out. "Entry barriers in the med-tech PLI



PHARMACEUTICAL PLI

Projects approved: 41
Inaugurated: 27 facilities
Products approved: 41 bulk drugs
Mfg underway: 22
Outlay: ₹6,940 crore

MEDICAL DEVICES PLI

Projects approved: 26
Inaugurated: 13 facilities
Products approved: 138
Mfg underway: 39
Outlay: ₹3,420 crore

persist, especially for small and medium players and that is something that is being discussed on various levels," said an industry association representative, requesting anonymity.

For a small or medium firm to partake in the med-tech/device PLI scheme, it has to establish a new plant, machinery and equipment in addition to new research and development, an industry-voice said. "The fact that the scheme is only relevant to greenfield investments is a barrier to their ability to participate in it," the industry representative added. Concerns persist on the scheme's impact on the cost of medical equipment. The impetus to increase production could result in a surplus of gadgets and a subsequent drop in costs — a typical demand-supply mismatch, they say.

The Centre announced two PLI schemes — for pharma (with an outlay of ₹6,940 crore and covering 41 bulk drugs) and for med-tech devices (outlay of ₹3,420 crore) and covering segments including cancer and radio-therapy, nuclear imaging and radiology, cardio-respiratory devices, implants. Government officials claim that over ₹6,000 crore has been invested across both segments.

Recently, Health Minister Mandaviya inaugurated 40 projects under the PLI scheme — 27 for bulk drugs and 13 for medical devices. The bulk drugs to be produced included levofloxacin, ofloxacin, telmisartan, vitamin B6 and diclofenac sodium. And the medical devices included CT scans and MRIs, cath lab and ultrasonography, as well as oxygen concentrators, ventilators, dialysis ma-

chines and stents, among others.

EXPAND SCOPE

A section of the PLI beneficiaries and trade bodies call for expanding the scope of these schemes, to give a greater push for API (Active Pharmaceutical Ingredient) manufacturing. A PLI beneficiary said, there has been significant decrease in API imports following implementation of the PLI scheme. For instance, paracetamol imports have halved compared to pre-pandemic levels.

"But, the decline notwithstanding, a substantial portion of APIs, particularly for antibiotics, are still imported. So, one needs to further develop API manufacturing here," one of the players said.

An outlay of ₹6,940 crore over seven years under PLI 1.0 for pharma is seen as less than 15 per cent of the combined turnover of the beneficiary companies, which seems a bit low, points out another industry participant.

Besides this, delays in setting up units, bringing facilities onstream, and reaching optimal production levels (a two-to-three year phase) raise concerns about inflation eroding the scheme's benefits (including incentives paid to beneficiaries).

To boost domestic production, the PLI scheme offers tiered financial support for fermentation-derived drugs: 20 per cent (first four years), followed by 15 per cent and 5 per cent in the fifth and sixth years, respectively. This applies to antibiotics, enzymes and hormones like insulin. Drugs that involve fermentation in their production process are more challenging to manufacture. So the production of fermentation-based drugs needs to be incentivised further, adds another industry hand.

While Covid-19 may have exposed the shortcomings in many a country's manufacturing armour, the next few years will reveal if PLI has helped India plug the chinks in its armour.

MY FIVE .



Abrarali Dalal,
Director & CEO, Sahyadri Hospitals

Cricket, cooking and the classics to unwind

- Cricket:** I've been playing some thrilling cricket matches with colleagues and club groups every weekend. The game strategy engages me, much like strategic planning in business.
- Gym:** I hit the gym every morning and take long brisk walks in the evenings. Wellness "me time" routine is my refresher.
- Reading:** Fascinating books — I find solace in stories, the escape they offer from the daily grind.
- Cooking:** Experimenting with new recipes and cuisines, discovering the joy of creating in the kitchen is a delightful adventure.
- Movies:** I have an early, light dinner. I unwind with classic movies and old songs at night. An amazing de-stressor, melodies transport you to another world.

COMING UP.

'My health, my right'

The right to health of millions is under threat. Diseases, conflicts and disasters loom as causes of death and disability. About 140 countries recognize health as a human right, but more than half the world's population — 4.5 billion people — were not fully covered by essential health services (2021). World Health Day (April 7) champions their right.

CLEAN FACTS.

On the status of e-waste



The International Telecommunications Union (ITU) and United Nations Institute for Training and Research (UNITAR) have released their Global E-Waste Monitor 2024.



The report focusses on e-waste, such as smartphones, computers and solar panels. It does not cover lithium batteries used in e-vehicles.

Less than 23 per cent of the 62 billion kg of e-waste generated in 2022 was properly recycled, the report noted. This is cause for alarm since e-waste contains a slew of toxic chemicals and metals which should not be dumped as they can contaminate earth, water and air. Unfortunately, the growing e-waste explosion is not being contained by adequate recycling. Even the US and Europe are lagging in recycling a big chunk of discarded electronics.

According to the report India has little or no effective recycling of e-waste. The ITU-UNITAR study predicts that e-waste generation increase by over 10 billion kg by 2030. It fears that unless the recycling effort is stepped up, it will be overwhelmed by the waste generated. The most e-waste per capita generated is in Europe, followed by Asia and then America. By total weight, China generated the most e-waste in 2022 at 12 billion kg with America second at 7.2 billion kg followed by India at 4.1 billion kg.

THEY SAID IT.

It is, for now, science fiction... But extreme heat, far less visually dramatic than hurricanes or floods, is claiming lives and livelihoods with a stealth which belies its impact.



JAGAN CHHAPAGAIN Secretary General, International Federation of Red Cross and Red Crescent Societies (IFRC)

Climate action needs a lot more acceleration

THE TIME IS NOW. As various indicators spike up and weather conditions change, there is a need for concerted effort to mitigate global warming

V Rishi Kumar

The World Meteorological Day last fortnight (March 23) reminded us once again of the ground realities vis-à-vis global warming. One thing is abundantly clear — we have no choice but to collectively step up our efforts to mitigate climate change. Lip service and half-hearted efforts won't do. If we fail to act, then extreme weather events across geographies, far more severe than what we have already witnessed, is the prognosis. With it will come disruptions that will derail economies and millions of lives.

"State of the Global Climate 2023," a recent report of the World Meteorological Organization (WMO), brings to the fore how these disruptive changes need to be better tracked and addressed. "It (2023) was the warmest year on record. The global average temperature in 2023 was about 1.45° C above the 1850-1900 average. Never have we been so close (albeit on a temporary basis) to the 1.5° C lower limit of the Paris Agreement on climate change," ob-



ON RED ALERT. As 2023 breaks temperature records, urgency grows ISTOCK.COM

serves Prof Celeste Saulo, Secretary General, WMO, in the report.

THE FUEL FACTOR

The report highlights issues around global warming, concentration of three main GHGs (greenhouse gases) — carbon dioxide, methane and nitrous oxide, reaching a record observed high level. And extreme weather conditions continuing to lead to severe socio-economic impact. Warming of the oceans meant

the global mean sea level continued to rise in 2023, with extreme weather and climate events having a major impact across continents.

Containing global warming at acceptable levels is indeed a challenge because of fossil fuel dependency being a key factor. The International Energy Agency (IEA) in its World Energy Outlook warns, "As things stand, demand for fossil fuels is set to remain far too high to keep within reach the Paris Agreement goal of

1.5°C. This risks not only worsening climate impacts after a year of record-breaking heat, but also undermining the security of the energy system, which was built for a cooler world with less extreme weather events."

Significantly, the IEA report cautions that despite the "impressive clean energy growth based on today's policy settings, global emissions would remain high enough to push up global average temperatures by around 2.4°C this century, well above the key threshold set out in the Paris Agreement."

In such a disruptive backdrop, clean technologies are expected to play a critical role wherein the energy system in 2030 could see ten times as many electric cars on the road worldwide than today. Solar PV will be generating more electricity than the entire US power system does currently. Renewables' share of the global electricity mix possibly nearing 50 per cent, up from around 30 per cent today and heat pumps and other electric heating systems outselling fossil fuel boilers globally and three times as much investment going into new offshore wind projects than into new coal and gas-fired power plants.

But to push the envelope even further requires much higher infusion of finance for renewables. Current flows represent only about 1 per cent of global GDP. For a 1.5°C pathway, annual climate finance investments need to grow by more than six times, reaching \$9 trillion by 2030 and a further \$10 trillion by 2050, says the WMO report on the need for climate policy initiative.

What about the ground realities in India? According to the WMO report, "Data from the Indian Meteorological Department reflects a worrying escalation in extreme weather events necessitating an urgent and collective response." Last month several parts of the country faced a severe water crisis. Majority of the country's reservoirs have hit their lowest in the past five years potentially causing concerns for adequate drinking water supply. With at least two more months to go before the south-west monsoon sets in, the country is in for tough days ahead.

We can only hope that the rain gods will not fail us. But more than looking up at the sky for mercy, we must look towards better way to reduce carbon emissions into the atmosphere.

How green is your eco-friendly product or service?

Using data, documents and an AI platform to rate sustainability parameters

Preeti Mehra

Though the consciousness to purchase eco-friendly products and services is growing among consumers, it is easy to get duped by fly-by-night operators. Many companies today profess to be sustainable and loudly declare their water positivity and energy efficiency status, but be it producers of packaged food, clothes, furniture or services like hotels and restaurants, there is no way to know how much of their claim is true.

To address this issue, COP 28 in December last year saw the launch

of EcoRatings, an AI powered platform that rates products and services on their ESG (Environment, Social and Governance) performance vis-à-vis the 17 Sustainable Development Goals framework constituted by the UN. And though the platform is only a few months old, the three young co-founders of EcoRatings find that they are striking a chord with both companies and consumers. A few weeks ago, they won the Digital Responsibility Award for Business Empowerment at the 18th edition of the India Digital Summit hosted by the Internet and Mobile Association of India (IAMAI).

But why would anyone take their



GREEN TALK. Verify sustainability claims for a greener tomorrow

effort seriously, especially when a rating can make or break a product's reputation? Co-founder Aqeel Ahmed says they too asked the same question when they started. And to

build their credibility, they started with the academic world. In February 2023, EcoRatings was incubated at the Graduate School of Business, Stanford University. In July the same year it was accepted by the Society for Innovation and Entrepreneurship, IIT Bombay, which included a small equity and a grant.

Today, they have an office space at IIT Delhi for their R&D and are waiting to receive their ISO 17065 accreditation which will make them a full-fledged body to certify products. EcoRatings is also partnering with Accenture for a "go to market" on their sustainability programme. "This is a huge endorse-

ment," says Ahmed and undoubtedly a big opportunity.

While the company's AI platform in lay terms is a kind of specialised ChatGPT for sustainability, this is backed with verifiable data sources and documents, searching the web, satellite imagery, and third-party verified data such as licenses. Ahmed says companies are responding well to the idea of rating: "They have realised that the market is becoming more environment conscious and they need to promote sustainability for a better response from the market, a better price and better revenue for their products and services."

QUICKLY.
Fidelity prunes value of stake in Musk's X by 5.7%



Fidelity cut the value of its stake in X by 5.7% in Feb, implying a 73 per cent decline since Musk bought the firm. Fidelity gained a stake in X by helping Musk complete his \$44-billion purchase of the then "Twitter". BLOOMBERG

STATE OF THE ECONOMY

There has been a significant movement towards understanding space as potentially contested territory, which needs to account for the defense angle, says Vijaykrishnan Narayanan, Coordinator, INDUS-X Academic Collaborations, in conversation with businessline's Dalip Singh.



JetSetGo to raise \$900 m to buy 12 aircraft; plans IPO in 2028

Forum Gandhi
Mumbai

JetSetGo is planning to raise \$900 million to acquire 12 new mid-sized twin-engine aircraft and expand its reach to Europe. The company also has plans for an initial public offering (IPO) by 2027-2028, according to Kanika Tekriwal, founder and CEO of JetSetGo.

"We are observing a preference for larger aircraft among our members," said Tekriwal.

"To cater to this demand, we are acquiring new planes exclusively for our membership programme, which offers fixed-hour subscriptions of 200 to 300 hours per year."

AIRCRAFT ACQUISITION
JetSetGo will finance the aircraft acquisition through a blend of debt, equity, and customer funding. The company plans to lease the planes into Gift City, India, while retaining ownership. The initial phase aims to raise \$100 million through debt and equity, with the remaining funded by customers.

"Currently, 80 per cent of our flights are domestic," Tekriwal said. "With the new larger aircraft, we aim to expand our international presence, particularly in Europe."

JetSetGo currently operates a fleet of 11 aircraft and

Telcos oppose TRAI proposal on easing norms for virtual network operators

NO PRESSING CASE. Point out that TRAI itself has been opposing VNOs' hook-up with multiple firms in a circle

Our Bureau
Mumbai

Bharti Airtel, Reliance Jio and Vodafone Idea have opposed the telecom regulator's proposal to allow virtual network operators (VNOs) to link up with multiple telecom companies in a circle. The telecom operators have argued that the regulator itself had ruled out such an arrangement earlier.

"Looking at the last 15 years of the VNO regime (starting 2008 when the issue was first brought up for discussion and recommendations issued by TRAI to 2016 when the VNO licensing regime in India was formalised), what is evident is that the regulator has discussed, debated and given its recommendations on specific aspects of multi-parenting umpteen times, and reiterated at every point that it does not support multi-parenting," Airtel said in a letter to TRAI.

VNOs are operators



NOT THE RIGHT THING. Multi-parenting would lead to unnecessary competition and favouritism-related issues besides creating technical and monitoring problems, Reliance Jio said

which do not own any infrastructure or spectrum. They lease capacities from larger telecom operators and then resell data and voice services.

EXISTING RULES
Under existing rules, a VNO is allowed to partner with only one telecom operator in an area. TRAI has proposed to allow VNOs to partner multiple players in a bid to make their business case more viable. Only a few

VNOs are present in the market due to the tough operating conditions.

"All the main four telecom operators (i.e. RJIL, Bharti Airtel, VI and BSNL) provide both wireline and wireless services and any multi-parenting involving two of these service providers, albeit for separate services, would lead to unnecessary competition and favouritism-related issues besides technical and monitoring related issues," Reliance Jio said.

"We believe that there is no need to change the prevailing provisions that restrict the VNOs from being parented by more than one telco for access services and other such services which need numbering and unique identity of the customer," Jio added.

UNIQUE IDENTITY
Vodafone Idea said that the consultation paper issued by TRAI does not carry any

FPI holdings hit decadal low despite \$25-b injection in FY23-24

KR Srivats
New Delhi

Foreign portfolio investors (FPIs) reduced their holdings in Indian equities to a decade low of 16.2 per cent of overall market capitalisation. The drop in FPI holdings in percentage terms may be attributed to selling in some sectors, partly due to underperformance in financials, where FPIs have a substantial exposure, said experts.

However, foreign portfolio investors have injected \$25 billion into the equity market in 2023-24.

FPI COMEBACK
Experts observed that FPIs still maintain a significant, albeit slightly reduced, overweight position in the financial sector. Meanwhile, Systematic Investment Plans (SIP) inflows continue to provide support to the market, averaging nearly \$2 billion per month. The overall FPI net inflows of \$25 billion to India 2023-24 is the second highest ever after FY21's \$37 billion.

After heavy net selling to the tune of ₹25,744 crore in January 2024 and modest net investment of ₹1,539 crore in February 2024, FPIs came back with a vengeance in March 2024 with

net inflows of ₹35,098 crore, taking the overall inflows for calendar year 2024 to ₹10,893 crore (\$ 1.7 billion), depositories' data showed.

INVESTOR CONFIDENCE
Alok Agarwal, Head Quant & Portfolio Manager, Alchemy Capital Management said FPI holdings in the Indian market has dropped to a decadal low largely due to a selloff triggered by portfolio underperformance and a spike in US bond yields.

"Despite the drop, FPI inflows in FY24 remained robust, indicating continued foreign investor confidence in the Indian market", Agarwal said.

"We expect FPI flows to remain strong and would expect them to resume increasing their stake in Indian markets".

Additionally, the emergence of retail investors in the Indian stock market has played a crucial role in counterbalancing the impact of FPI outflows, with domestic mutual funds and direct retail investors significantly increasing their free float ownership of NSE listed companies, thereby reducing the influence of FPI flows, he said.

Sunil Damania, Chief Investment Officer, MojoPMS said historical trends sug-

gest a potential slowdown in inflows for FY2025 following record investments by FPIs.

DIMINISHED INFLUENCE
"After two consecutive years of being net sellers in FY2022 and FY2023, foreign FPIs have made a robust return to the Indian market, injecting over ₹2 lakh-crore in FY2024," Damania said.

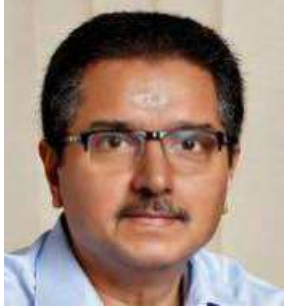
"It's noteworthy that over time, FPI inflows have exhibited minimal impact on market returns, owing to the strength of domestic inflows. Consequently, the influence of FPI investments on market returns has diminished compared to previous periods".

DEBT HOLDINGS
V K Vijayakumar, Chief Investment Strategist, Geojit Financial Services, said the distinct trend in FPI flows this year is the erratic nature of equity flows in contrast to the steady positive trend in debt inflows.

"FPI inflows into debt has been steady this year and has reached an impressive figure of ₹55,857 crores in 2024 so far. This trend is likely to continue," he said.

A leader who steered Rane's transformation

G Balachander
Chennai



L Ganesh relinquished his role as Chairman of the operating entities of Rane Group on March 31

Two weeks ago, Chennai-based leading auto component house Rane Group announced a significant transition in its leadership and said that Ganesh Lakshminarayan aka L Ganesh would relinquish his role as Chairman of the operating entities of Rane Group, effective from close of business hours on March 31, 2024.

SPOT LIGHT.

Ganesh is one of the acknowledged leaders in the field of auto ancillary industry. The septuagenarian leader, who served as a Chairman of the Rane Group for 17-odd years, will pass on the baton to Harish Lakshman, eldest son of L Lakshman, elder brother of Ganesh.

Ganesh's period saw Rane grow from strength to strength, building on the wonderful foundation established by his father L L Narayan (LLN) and brother Lakshman.

Beginning his career as a Management Trainee in Rane Engine Valves Ltd (REVL) in 1978, Ganesh progressively handled various responsibilities and rose to become its Vice Chairman in 1994 and Managing Director in 2007.

Born on March 18, 1954, Ganesh — a chartered accountant who holds an MBA from Pennsylvania State University, US — has close to five decades of industry experience and pioneered the TQM (total quality movement).

QUEST FOR QUALITY
Thanks to Ganesh's quest for quality, three of Rane's businesses won the coveted Deming Grand Prize under his leadership. He was also conferred with the prestigious Deming Award in recognition of his outstanding contribution to the dissemination and promotion (overseas) of TQM in 2022.

Ganesh was the third Indian and fifth globally to be bestowed with this presti-

ous award for his contributions.

Ethics, integrity, professionalism and growth blended with financial conservatism are described as hallmarks of Rane's culture.

REMARKABLE TENURE
During his tenure, the group's revenue grew from ₹1,050 crore to about ₹7,200 crore, with exports doubling from 12 per cent to 24 per cent. Ganesh is confident that the share will grow further to 30 per cent in the next few years.

Traditionally, Indian companies are known for low R&D spends. Rane was no exception. But, with the advent of new automotive technologies and the growing need for rapid response from suppliers, the group has realised the need to spend more on R&D. Ganesh has set out a target to more than double the R&D spend of the group as a percentage of sales in the coming years from the present 0.5-0.75 per cent.

At the national level, L Ganesh has been an articulate spokesman for the automotive industry and served various industry bodies such as the Confederation of Indian Industry, the Automotive Component Manufacturers Association of India and the Madras Management Association (1991-92). Currently, he is the Honorary Consul for New Zealand in South India.

He is widely travelled and a keen follower of cricket and tennis. He is married and has a daughter and a son.



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- General Manager

CGMs and the continuing pain of elusive affordability

PT Jyothi Datta
Mumbai

The biosensors are smaller and research is more accurate, but price continues to play spoil-sport in the adoption of continuous glucose monitor (CGM), a device that helps people read their sugar levels and manage their diabetes.

Recently, the US Food and Drug Administration approved their first over-the-counter (OTC) CGM, Dexcom's Stelo Glucose Biosensor System. But CGMs have been available OTC in India for at least three years. Experts and users are now calling for affordably priced, new generation CGMs in India, which is home to the second-largest number of people with diabetes.

businessline.

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Besides multinationals Abbott, Dexcom and Medtronic, home-grown brands such as Ultrahuman and Eyva have begun to emerge.

Popular CGMs involve a coin-sized biosensor fixed to the upper-arm and a reader that continuously reads sugar levels in the fluid present below the skin, explains diabetologist Dr V Mohan. Companies continue to research wearables to read glucose levels, but have not succeeded, said Mohan. The USFDA recently warned about the risk of using smartwatches, rings, etc., that claim to measure blood sugar without piercing the skin.

Biosensors are getting smaller, and research is more accurate, but remain unaffordable to many, said Mohan, Chairman, Dr Mohan's Diabetes Specialities Centre.

Abbott's FreeStyle Libre System costs about ₹11,000-odd (reader and biosensor). The sensor (about ₹5,000 odd) gives continuous readings for 14 days and analytics over a three-month period and is a recurring cost for the consumer. Abbott has been selling FreeStyle Libre OTC in



more than 60 countries for a decade, including OTC in India (2020), a company spokesperson said. Industry insiders point to Dexcom's product as "high class, but expensive". Presently unavailable in India, Dexcom Stelo was to launch in the US (summer 2024), and it was evaluating markets on "a case-by-case basis", a company spokesperson told businessline.

MICRO-MANAGE
CGMs help micro-manage medicine doses, or map the impact of changed medication on glucose levels, explains David Chandy, Consultant Endocrinologist at Sir HN Reliance Foundation Hospital. Medtronic's CGM, for example, has a sensor and transmitter that are linked to an insulin pump to deliver the re-

quired dose, he says, but at over ₹40,000 (for transmitter), it becomes unaffordable, he observed. A user added that the annual cost could run into lakhs.

Without getting into price specifics, a Medtronic spokesperson said there was a growing adoption of personal CGMs as users received continuous information, including trends that could be correlated with food, activity, medications, etc.

NEXT-GEN CGMS
Newer generation CGMs are being launched globally, but not available in India, says Chandy, urging them to bring in these products, at affordable prices. Next-gen products can, for example, alert users on a dip in glucose levels, which is especially useful in children, he explains.


Bengaluru-headquartered UltraHuman's CGM was launched in 2020. But at ₹7,000 for a biosensor, is the price inhibiting adoption? "We want to make health accessible," said Mohit Kumar, UltraHuman Founder and CEO, in an emailed response on his behalf. "As the adoption of CGMs ex-

pands and as more manufacturers venture into the CGM market, we can optimistically expect a decrease in prices over time..."

A recent technology approval for the mobile phone has allowed more people to adopt the Libre CGM, as readings could be mapped with a mobile phone application, says Chandy. While some chemists were unaware, a user said, she used the CGM with other available software, as the recurring cost of the sensor was high.

Last year, a non-invasive glucometer Eyva, that claimed to give six readings in 60 seconds, on user touch, was unveiled at ₹16,650, in India. The readings included blood glucose (no needle pricks), HbA1c, ECG, blood pressure, oxygen and heart rate. The gadget features included a free app providing daily, weekly, and monthly trends on the person's lifestyle, reports said.

"It allows four users to monitor their vitals on the same device. The software subscription is being offered for free and the user only has to bear the one-time product cost," a report published in this paper said.



TATA MUTUAL FUND

NOTICE
Unitholders are hereby informed about the declaration of Income Distribution cum capital withdrawal under the Monthly Payout / Reinvestment of Income Distribution cum capital withdrawal option* of the following schemes. The record date for the same is 03 April, 2024.

Schemes - Plan / Option Name	Gross dividend (income distribution cum capital withdrawal) amount per unit (₹)**	Face value per unit (₹)	NAV (₹) as on 27 Mar, '24
Tata Hybrid Equity Fund - Direct Plan*	0.34	10.00	96.5347
Tata Hybrid Equity Fund - Regular Plan*	0.34	10.00	83.4398
Tata Equity Savings Fund - Direct Plan*	0.055	10.00	19.8277
Tata Equity Savings Fund - Regular Plan*	0.055	10.00	16.4829

***(Monthly Income Distribution cum capital withdrawal is not assured & is subject to the availability of distributable surplus).**

Pursuant to payment of Income Distribution cum capital withdrawal, the NAV of the scheme would fall to the extent of the payout & statutory levy (if applicable).

Unitholders kindly note that amounts are distributed out of investors capital (i.e., Equalisation Reserve), which is part of sale price of the unit that represents realized gains.

**** Payment of Income Distribution cum capital withdrawal is subject to Tax deducted at source (TDS) at applicable rates and other statutory levies if any. Income Distribution cum capital withdrawal is subject to availability & adequacy of distributable surplus on the record date.**

All unitholders holding units under the above-mentioned option of the scheme as at close of business hours, on the record date shall be eligible for dividend.

Considering the volatile nature of markets, the Trustees reserves the right to restrict the quantum of Income Distribution cum capital withdrawal upto the per unit distributable surplus available on the record date in case of fall in the market.

Applicable for units held in non-demat form: Income Distribution cum capital withdrawal will be paid to those Unitholders whose names appear in the Register of Unitholders under the Payout /Reinvestment of Income Distribution cum capital withdrawal option of the aforesaid plan as on record date. These payouts would be done to the last bank/address details updated in our records.

Applicable for units held in demat form: Income Distribution cum capital withdrawal will be paid to those Unitholders/Beneficial Owners maintained by the Depositories under the Payout/Reinvestment of Income Distribution cum capital withdrawal option of the aforesaid plan as on record date. These payouts would be done to the last bank/address details updated in Depository Participant(s) records.

Mutual Fund Investments are subject to market risks, read all scheme related documents carefully.