

THIS WORD MEANS

FEDOR THE ROBOT

Russia's humanoid robot has just reached International Space Station. What is he supposed to do?

ON TUESDAY, the humanoid robot Fedor, the first from Russia sent into orbit, reached the International Space Station. Short for Final Experimental Demonstration Object Research, Fedor can be operated manually by ISS astronauts wearing robotic exoskeleton suits. The robot mirrors their movements.

Fedor stands 180 cm tall and weighs 160 kg. It copies human movements, which will enable it to perform tasks that are risky for astronauts strapped onto an exoskeleton.

In an interview on the website of the Russian space agency Roscosmos, Fedor developer Yevgeny Dudorov said space is the most important industry for using robots, a dangerous environment for humans. "The ideal option for an assistant, and in some cases a complete replacement for a person, is an anthropomorphic robot," Dudorov said.

Fedor has his own Instagram and Twitter accounts. He was sent in an unmanned Soyuz capsule, which failed to dock at the ISS on Saturday. After another attempt on Tuesday was successful, Fedor tweeted: "Sorry for the delay. Got stuck in traffic. Am ready to carry on with work."

Fedor, who will copy human movements, will help with high-risk tasks at the ISS until September 7, when he is scheduled to return. Roscosmos head Dmitry Rogozin was quoted as telling Interfax news agency that Fedor could help in tests on Russia's new manned transport ship under development, the Federatsiya, or a spacewalk to work on the outside of the ISS. "That's what he's being created for. We don't really need him inside the station," Rogozin was quoted as saying.

While Fedor is Russia's first robot in space, other countries have previously sent theirs. In 2011, NASA sent up Robonaut 2, a humanoid developed with General Motors that had a similar aim of working in high-risk environments, AFP reported. Robonaut 2 was flown back to Earth in 2018 after experiencing technical problems. In 2013, Japan sent up a small



In this photo taken on July 26 and distributed by Roscosmos Space Agency Press Service, the Fedor robot is displayed before being loaded into a Soyuz capsule. AP

robot called Kirobo, developed with Toyota. It was able to hold conversations in Japanese.

Soyuz capsules are normally manned, but this time no humans were travelling in order to test a new emergency rescue system. The spacecraft blasted off last Thursday from a Russian spaceport in southern Kazakhstan, with Fedor in the commander's seat. AFP reported that the robot was heard saying "Let's go. Let's go," during the launch, repeating the phrase used by the first man in space, Yuri Gagarin.

The ship was carrying scientific and medical equipment, and components for the space station's life-support system, as well as food, medicines and personal hygiene products for crew members.

SIMPLY PUT QUESTION & ANSWER

RBI transfers to govt: how, why

Bank's Central Board has decided on a record transfer of Rs 1.76 lakh crore. On what basis are such transfers made? Why has it been sometimes contentious, and how was the amount settled this time?

SHAJI VIKRAMAN
CHENNAI, AUGUST 27

ON MONDAY, the RBI Central Board decided to transfer a record surplus — Rs 1.76 lakh crore — to the government.

The issue of transfer of surplus or profits has often been contentious. The government often pitches for a higher payout, arguing it needs to spend to deliver on promises and to keep the economic momentum going, while a conservative central bank, which has medium- and long-term perspectives, prefers to salt away a good portion of the profits for a rainy day. Seldom has this battle been as bitter as it was last year when Urjit Patel was the RBI Governor and Subhash Garg was the Secretary, Economic Affairs in the Finance Ministry. At stake was the level of reserves the RBI should hold or maintain and the quantum of profits to be distributed. On Monday, the issue was settled.

The RBI transfers its surplus to the government every year. So what is special about the payout this time?

Yes, the RBI does transfer its surplus annually to the government, the owner of the institution, after making adequate provisions for contingencies or potential losses. The profit that is distributed has varied, averaging over Rs 50,000 crore over the last few years.

On Monday, the RBI Board accepted the recommendations of a committee headed by former Governor Bimal Jalan on transfer of excess capital. Based on the panel's report, the Central Board decided to transfer a surplus of Rs 1.23 lakh crore and Rs 52,637 crore of excess provisions made over the years. This marks the first time the RBI will be paying out such a huge amount, a one-off transfer. Earlier, the government had budgeted for Rs 90,000 crore from the RBI as dividend for this fiscal year.

On what rationale was such a huge payout approved?

The level of surplus or profits the RBI pays to the government has been an issue of conflict two for long. Over the last decade or more, the government had sought higher payouts saying the RBI was maintaining reserves or capital buffers that were much higher than many other global central banks' buffers. The government has argued that such relatively lower transfers cramped public spending for infrastructure projects and social sector programmes, considering the pressure to meet deficit targets and to provide space for private firms to borrow. With the government amplifying its demand for a higher transfer, the Jalan committee reviewed the capital structure, statutory provisions and other issues relating to the RBI balance sheet. After making a distinction on the RBI's capital structure especially on unrealised gains (which are essentially gains not booked) and taking into account the role of the central bank in ensuring financial stability, potential risks and global standards, the committee suggested a total transfer of Rs.1.76 lakh crore.

How does the RBI generate surplus?

A significant part comes from RBI's operations in financial markets, when it intervenes for instance to buy or sell foreign exchange; Open Market operations, when it attempts to prevent the rupee from appreciating; as income from government securities it holds; as returns from its foreign currency assets that are investments in the bonds of foreign central banks or top-rated securities; from deposits with other central banks or the Bank for International Settlement or BIS; besides lending to banks for very short tenures and management commission on handling the borrowings of state governments and the central



WHAT RBI HAS SAID ON TRANSFERS



DR Y V REDDY
GOVERNOR,
2003-08

"There is no doubt that in the ultimate analysis, the government as the owner has a claim over the reserves, but the way it exercises gives signals to the market and influences public opinion. There is merit in keeping at least the central bank's balance sheet strong if the government's fiscal balance sheet is weak. But substantively, it is the judgment of the government that prevails on the adequacy issues, though procedurally that of the board."



D SUBBARAO
GOVERNOR,
2008-13

"In India even as the autonomy of the Reserve Bank is an issue, the amount of surplus transfer or the capital requirement of the RBI have never been variables in defining the government-central bank relationship."



RAGHURAM RAJAN
GOVERNOR,
2013-16

"There are no creative ways of extracting more money from the RBI — there is no free lunch! Instead, the government should acknowledge its substantial equity position in the RBI and subtract it from its outstanding debt when it announces its net debt position. That would satisfy all concerned without monetary damage."



VIRAL ACHARYA
DEPUTY GOVERNOR,
2017-19

"Governments that do not respect central bank independence will sooner or later incur the wrath of financial markets, ignite economic fire, and come to rue the day they undermined an important regulatory institution. Their wiser counterparts who invest in central bank independence will enjoy lower costs of borrowing, the love of international investors and longer life spans."

specified in the laws.

So, what is the difference in India now and compared to the past?

The quantum is discussed and decided between the government and RBI. Periodically, this has been guided by policies set out internally, as last time when a committee headed by YH Malegam recommended distributing 100% of the profits made during Raghuram Rajan's time. The difference now is that the Jalan committee's recommendation on a profit distribution policy has been endorsed by the Central Board. That will mean a more transparent and rule-based payout from next year, as in many other central banks, which could help narrow differences between the government and RBI.

What can the government do with this huge surplus?

Normally, the money is transferred to the Consolidated Fund of India from which salaries and pensions to government employees are paid and interest payments done, besides spending on government programmes. The large payout can help the government cut back on planned borrowings and keep interest rates relatively low. Besides, it will provide space for private companies to raise money from markets. And if it manages to meet its revenue targets, the windfall gain can lead to a lower fiscal deficit. The other option is to earmark these funds for public spending or specific projects, which could lead to a revival in demand in certain sectors and boost economic activity.

What are the potential issues relating to a higher payout?

That has been articulated by former Governor Rajan. According to him, much of the surplus the RBI generates comes from the interest on government assets (securities or bonds) or from capital gains made off other market participants. When this is paid to the government, the RBI is putting back into the system the money it made from it; there is no additional money-printing or reserve creation involved, he says. But when the RBI pays additional dividend, it has to create additional permanent reserves or, more colloquially, print money. So, to accommodate the special dividend, the RBI will have to withdraw an equivalent amount of money from the public by selling government bonds in its portfolio, he says.

Why do central banks hold back on transferring large amounts?

Especially after the global financial crisis when central banks had to resort to unconventional means to revive their economies, the approach has been to build adequate buffers in the form of higher capital, reserves and other funds as a potential insurance against future risks or losses. A higher buffer enhances the credibility of a central bank during a crisis and helps avoid approaching the government for fresh capital and thus maintain financial autonomy.

Given conflict in the past, how was the distribution of profits settled this time?

In his memoir, former RBI Governor D Subbarao had written how arguments on this would go on year after year but a settlement would be reached with some flexibility shown by both sides. "Even though contentious, (it) has never turned acrimonious," he wrote a couple of years ago. That wasn't the case last year and in the first half of this year. As the government's nominee on the Jalan committee, Garg had submitted a dissent note. His exit from the Finance Ministry and the entry of the new Governor, Shaktikanta Das, and Garg's successor Atanu Chakraborty and backroom talks, may have led to the flexibility of approach that Subbarao indicated in his book, and the resultant decision on a record payout.

TIP FOR READING LIST

KEY FIGURES IN PARIS LIBERATION

THE LIBERATION of Paris, the military battle which freed the city after over four years of Nazi rule, is well documented as one of the key events of the Second World War. Political scientist Jean Edward Smith of Marshall University has now examined the three military figures who held the fate of Paris in their hands.



The *Liberation of Paris: How Eisenhower, de Gaulle, and von Choltitz Saved the City of Light* explores two sets of events in the critical moments before Paris's recapture. First is the discarding of the original American plan of heading towards Germany by-passing Paris, and turning towards the city itself instead. This was after French

general Charles de Gaulle convinced American military leader Dwight Eisenhower, Smith writes; this helped de Gaulle's ascendancy to the top political office in France after the War, while at the same time denying French communists the chance to arrive on the scene before him.

The second event is the defiance of Hitler's orders to turn Paris into a "field of ruins" by the German general Dietrich von Choltitz. Von Choltitz was a trusted aide deputed to Paris by Hitler himself. Through careful sabotage of the Third Reich's orders, and disregarding a very real threat to his family, von Choltitz secured a bloodless handover of Paris to the Allies, Smith writes.

Pig organs in human body: an old controversy over transplantation returns

TABASSUM BARNAGARWALA
MUMBAI, AUGUST 27

LAST WEEK, pioneering transplant surgeon Sir Terence English, who had performed the first heart transplant in the United Kingdom in 1979, declared that his team would this year transplant a pig's kidney into a human's body. And in three years, he claimed, a heart transplant can be achieved.

The statements reopened an old controversy around xenotransplantation, or the transplanting of organs from one species to another. There is a precedent from years ago — 1997 — with an attempted pig-to-human heart transplant in India.

The doctor in Assam was held guilty of an unethical procedure, and imprisoned for 40 days. Yet, many see hope in the potential of xenotransplantation to save lives.

Animal-to-human transplants

The first attempts at animal-to-human transplants were made in 1838, when the cornea of a pig was transplanted into a human. Between 1902 and 1923, organs from pigs, goats, sheep, and monkeys were used

in unsuccessful transplantation attempts. From 1963 onward, researchers attempted organ transplantation from chimpanzees, baboons and pigs. In 1984, a two-week-old baby in the United States received a baboon's heart, but died within three weeks.

For fear of transmission of viruses from animals to humans, xenotransplantation has for long been an area that governments and doctors have treated with caution. Researchers are now trying to genetically alter pigs to enable organ transplantation in humans.

Need to look at animal organs

The need for organ donation is rising globally alongside the rise in kidney, liver and heart ailments. "Several die while waiting for an organ donation," said Dr Astrid Lobo Gajiwala, director of Regional Organ and Tissue Transplant Organisation, Western India.

India's national registry shows 1,945 liver and 7,936 kidney transplants were conducted in 2018. This is when India needs 1.8 lakh-2 lakh kidney transplants every year, as per Ministry of Health and Family Welfare data. With lack of human cadavers

as donors, researchers are looking at animal organs as an alternative.

"In India, this is a distant dream, since animal rights laws do not allow us to even experiment," said heart transplant surgeon Dr Anvay Mulay.

Why pigs in particular?

A pig's genetic make-up and internal organs are similar to a human's. Its weight, the tendency to become obese, lipids, arterial pressure, heart rate, renal function, electrolyte balance, and digestive system match those in the human body.

The problem is that the rejection rate is higher in a pig-to-human transplant than in a human-to-human transplant. 'Rejection' is what happens when the human body's immune system starts working against any foreign organ. In a human-to-human transplant, immunosuppressants help trick the body into accepting the foreign organ as its own. But immunosuppressants have failed to work in animal-to-human transplants.

Kidney transplant expert Dr Prashant Rajput said there are certain enzymes, proteins and amino acids in pigs that are dif-

ferent from those in humans. "These are substances against which the human body will produce antibodies and reject the organ. It is called antigenicity. The lower the antigenicity, the better," Dr Rajput said.

The 1997 attempt in Assam

In 1997, heart surgeon Dr Dhani Ram Baruah, along with Hong Kong surgeon Dr Jonathan Ho Kei-Shing, conducted a pig-to-human heart and lung transplant in Baruah's clinic in Sonapur on the outskirts of Guwahati. It was a first in India.

In an email, Baruah told *The Indian Express* that he "developed new anti-hyperacute rejection biochemical solution to treat donor's heart and lung and blind its immune system to avoid rejection".

After 102 experimental studies in Baruah's institute, the transplant was conducted on 32-year-old farmer Purno Saikia on January 1. Saikia died a week later; the autopsy showed an infection. The transplant caused an international flutter. Baruah and Kei-Shing were arrested within a fortnight for culpable homicide and under the Transplantation of Human Organs Act, 1994, and imprisoned for 40 days. The

Assam government instituted an inquiry and found the procedure unethical.

Recent research, procedures

Researchers have been trying to replace pig's kidney proteins with human proteins, so that the human body does not reject the organ.

In the University of São Paulo's Biosciences Institute, experiments are on to genetically modify pigs. In February this year, geneticist Mayana Zatz said at a symposium that there are three genes in pigs that provoke rejection when transplanted into a human body; genetic modification of these could solve the problem.

In the United States, pigs' hearts were transplanted in baboons, which survived for two years with the pig hearts beating alongside their own. In Massachusetts General Hospital, gene modification techniques are being used in pigs before transplanting their organs in monkeys, in the hope that these techniques can be tried in humans later. Countries such as Germany, the United Kingdom, New Zealand, Russia, Ukraine, and Mexico are conducting similar research.

Indian Council of Medical Research guidelines allow only animal-to-animal transplants. Kochi-based hand transplant surgeon Dr Subramania Iyer said the scope of xenotransplantation will be discussed in the Congress of the Asian Society of Transplantation Conference in New Delhi next month.

What can be expected now

Sir Terence English made his comments on the 40th anniversary of the UK's first heart transplant. *The Sunday Telegraph* quoted him as saying that his protegee during the 1979 operation is preparing to perform the world's first pig-to-human kidney transplant before the end of this year.

"If it works with a kidney, it will work with a heart. That will transform the issue," Sir Terence, 87, told the newspaper.

Back in Assam, Baruah, a fellow of Royal College of Surgeons and Physicians, maintains that he had achieved a breakthrough, and that it was suppressed by the international fraternity.

Asked about the UK's renewed attempts, he said, "This news published recently is same old wine filled in a new bottle. I said all this 24 years ago."



The Indian EXPRESS

FOUNDED BY
RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

USE WINDFALL WELL

Government should lead from the front, ensure that capital spending kickstarts growth-enhancing economic activity

THE DECISION OF the RBI's central board on Monday to accept the recommendations of the Bimal Jalan Committee and transfer Rs 1.76 lakh crore to the government this fiscal year should signal a welcome end to the conflict between the finance ministry and India's central bank on at least the issue of quantum of transfers to the exchequer. The souring of ties between the two had led to the exit of former governor, Urjit Patel, and his deputy, Viral Acharya, and a face-off later between the Jalan Committee and the secretary, economic affairs, the government's nominee on the panel.

With the RBI board endorsing the Committee's suggestions, the central bank will pay out a little over Rs 1.23 lakh crore of surplus and Rs 52,637 crore of excess provisions on its books in FY 20. This effectively means a windfall of Rs 86,000 crore for the government considering that it has already budgeted for a surplus or dividend of Rs 90,000 crore from the RBI this fiscal. Now that the debate on transfer of excess capital has been settled, the government should quickly get down to sequestering or earmarking this one-time payout, distinct from the Consolidated Fund of India, for public investment or spending on projects. There is a compelling case for that now. With India's growth engine sputtering, reflected in a decline in private investment, little or no risk-taking by industry or businessmen and now, worryingly, a fall in demand — with consumers worried about incomes and jobs loath to spend — and no leeway for a fiscal stimulus, it is only the government which can make up for the slack. That's why it is important not to lose the opportunity to utilise the windfall gain unlike in the past when receipts from spectrum auctions of over Rs 1 lakh crore on two occasions were used for revenue expenditure and to pare the fiscal deficit. Instead of putting away these funds for recapitalisation of banks, as has been suggested by some, including the former chief economic advisor, Arvind Subramanian, the government should productively employ these funds by identifying projects where land acquisition and other statutory approvals have been obtained. These could feature even projects helmed by the private sector.

A close monitoring of projects which lead to creation of durable assets and where the government or one of its arms invests these funds, including in equity, can help kickstart growth enhancing economic activity and also help generate good returns down the line. The timing, too, is opportune with the RBI having lowered interest rates by 110 basis points starting from February this year. With other headwinds, such as the threat of a global downturn and limited tools in the hands of central banks to provide another boost this time around, it is the government which should lead from the front. Like transmission of interest rates, the impact of such capital spending will be felt only after a few quarters, which is why policymakers should move fast on this.

WRIT IN FLAME

Fires in Brazil's rainforests are a warning Brazil's climate-sceptic president must heed

FOREST FIRES ARE not exceptional in the Amazon. Flames are used routinely to clear overgrown pastures, crop residues, and roadside vegetation. But this year, fires in the rainforests have assumed alarming proportions. Brazil's National Institute of Space Research (INPE) has reported nearly 72,000 fires in the Amazon this year, more than 9,000 of them over the past 10 days. Brazil's president, Jair Bolsonaro, an outspoken sceptic of environmental concerns, initially dismissed the severity of the outbreak: He called the INPE data a "big lie", sacked the agency's head, and claimed that "NGOs had started the fires in order to discredit his government". However, faced with international criticism, Bolsonaro has deployed the army to contain the blaze.

Stretching across 5.5 million sq km, the Amazon is home to more than 300 million people, about two million of them belong to the region's 400-odd indigenous communities. The rainforests contain more than 10 per cent of the Earth's biodiversity. They produce nearly 20 per cent of the oxygen in the Earth's atmosphere and play a major role in many of the processes that make the planet habitable. The forests are a buffer against climate change. According to a paper published in 2007 in the Proceedings of the National Academy of Sciences of the United States of America, the Amazon can absorb 9-14 decades of human-induced carbon dioxide emissions. Deforestation will put all these ecosystem services of the rainforests in peril.

Brazil, which controls a lion's share of the Amazon, is the world's largest exporter of beef — last year, the country exported a record 1.64 million tonnes. Brazil also exported a record 83.3 million tonnes of soya in 2018, up 22.2 per cent from 2017. The US-China trade war has led to Beijing increasing its soya imports from Brazil. Environmental groups allege that the surge in Brazil's beef and soya exports has come at the cost of the Amazon. Such links could be tendentious. But there is no doubt that Bolsonaro's government has thrown its weight behind the commercial exploitation of the rainforest. He has cut the budget of the country's environmental protection agency, IBAMA, by 24 per cent and made FUNAI, the agency responsible for supporting indigenous people, subordinate to the country's agriculture ministry. Brazil has lost nearly 3,000 sq km of forest cover since Bolsonaro assumed office in January, according to INPE data. The Amazon fires should be a warning the president must heed.

10,000 HOURS

Turns out no amount of practice can make up for a lack of natural talent. But there are easier routes to living your dreams

IF YOU DREAM big and work hard," millionaire celebrities are fond of saying, "nothing can stop you". It is precisely this kind of naive optimism that lies at the core of the 10,000-hour rule, articulated by Malcolm Gladwell in *Outliers* (2008). The crux of this theory is that more than talent, interest or even natural ability, "10,000 hours is the magic number for greatness". A new study by psychologists at the Case Western Reserve University in Cleveland, Ohio, has confirmed what most people — those who could not become Tendulkar or Beethoven or Picasso — already know. While practice is important, if you don't have it in you to begin with, it doesn't make perfect.

The basis for Gladwell's now clichéd formulation was research conducted among violinists in 1993 that found the difference between "good" and "great" is clocking in the "magic number". The new study finds that the best violinists (and by extension, practitioners of any skill) often don't practise as much as their less talented counterparts and yet, excel to a greater degree. The nub of the new findings is twofold: First, no matter how much time most people spend on the basketball court, they aren't going to become Michael Jordan. Second, there are indeed people born with it.

However, this need not cause despondency. In the era of celebrity and social media, there are other ways to live all your dreams. Every *Bigg Boss* contestant has managed to get rich and/or famous by being publicly obnoxious. Then there's the fact that being good at one thing allows you to indulge your hobbies and get paid for it — TV channels insist on subjecting viewers to Bollywood celebrities playing sports. A good PR agent and the right connections can take you a lot further than 10,000 hours.

The verdict of history

Historians may pay keen attention to this period in Supreme Court. Is it facing an ADM Jabalpur moment?



RAJU RAMACHANDRAN AND CHANDER UDAY SINGH

WAY BACK IN 1952, the Supreme Court said in no uncertain terms that when it came to fundamental rights, the Constitution had assigned it the role of "a sentinel on the *qui vive*". As the Court turns 70 in a few months, is the sentinel sufficiently alert, or is it in danger of losing the plot?

The Emergency years are acknowledged as the Court's most forgettable period, with the Court touching the nadir in the *ADM Jabalpur* case. Four judges out of five (with the honourable exception of Justice HR Khanna) accepted the government's contention that the right to life and personal liberty did not exist under a proclamation of Emergency. Apart from accepting such an outrageous legal submission, there were naive observations including an expression of "a diamond-bright, diamond-hard hope" that the fears of the detenus would never come to pass and that care for them was "almost maternal". The renowned jurist, H M Seervai, wryly noted that even before the SC had handed out these good conduct certificates to the Central and state governments, P Rajan, an engineering college student in Kerala, had been murdered by torture with iron and wooden rollers.

Many years later in 2017, in the right to privacy case (*KS Puttaswamy v. Union of India*), the Supreme Court overruled *ADM Jabalpur*. One judge went so far as to say that the *ADM Jabalpur* case was an aberration in the constitutional jurisprudence of the country and felt that the majority opinion deserved to be buried "ten fathoms deep" with "no chance of resurrection". Yet, just two years after *Puttaswamy*, questions have now been raised on whether the Court is reverting to an *ADM Jabalpur* phase.

The *New York Times*, in its August 23 edition, reported that more than 2,000 Indian citizens in Kashmir have been detained without authority of law, and without recourse. Many have been unconstitutionally flown out in military aircraft and incarcerated without due process in Agra, Lucknow and Varanasi. Included amongst them are the president of the J&K High Court Bar Association, a leading businessman, an anti-corruption activist and journalists, university professors, Arabic scholars, and even children as young as 14 years.

The *NYT* reiterated what has been reported in some independent Indian media

that the entire Kashmir Valley's 68 lakh people, and parts of Jammu's 54 lakh people, have been under "lock-down" for almost three weeks since the midnight of August 5, with all mobile networks and even telephone landlines disabled, complete curfew, and shutdown of schools and colleges.

Days earlier, Shah Faesal, the first Kashmiri to top the IAS examinations, who cut short a distinguished career to form a political party, was detained without charge at Delhi Airport. He was then flown out without transit remand to Srinagar, as he could not be legally detained in Delhi. This was a sequel to the incarceration or house arrest of all mainstream leaders of registered political parties in Kashmir.

Untold human suffering has been visited upon a 1.25 crore populace as a "preventive" measure, and continues with little or no let-up three weeks later. But two different benches of the SC have taken at face value the stand of the government on the need for such a drastic clampdown and suspension of not just civil liberties, but the very right to life and liberty that is guaranteed by Article 21 of the Constitution of India. Showing complete faith in the words of the Attorney General and the Solicitor General, each of those benches asked the petitioners to wait for some time, as the law officers informed the Court (without giving any details or particulars), that "normalcy" would soon be restored. It was this same enduring faith in the government's word that made eminent SC judges accept the word of the government in *ADM Jabalpur*, that the government would never misuse its powers merely because it had suspended the right to life and liberty during the Emergency.

While these events unfold, a SC-mandated exercise hurtles towards a potentially horrific denouement in Assam. The National Register of Citizens (NRC) process of identifying non-Indian citizens has been directed by the Court to be completed by August 31. The Court is not oblivious to the fact that nearly 40 lakh persons who have either been born in India, or have lived in the country for several decades, risk being declared stateless because of a deeply flawed process. Section 3(1)(a) of the Citizens Act, 1955 mandates that every person born in India between Republic Day 1950 and June 30, 1987 shall be a citizen of India by birth, but despite this, the

Coordinator is excluding from the NRC all persons born in India prior to June 30, 1987 on the ground that one parent of such person is either a "doubtful voter (DV)", or a "declared foreigner (DF)", or a "person whose claim for citizenship is pending before a Foreigner's Tribunal (PFT)".

Startlingly, after categorically stating in open court on August 9, that there was no question of excluding persons born in India before June 30, 1987 from the NRC, and that applicants and interveners need not address the Court any further on this aspect, the SC in its order of August 13 upheld the Coordinator's recommendation to **exclude** the lakhs of persons born in Assam from 1950 to 1987. And the primary reason given by the Court for this mass exclusion of lakhs of Indian citizens is that "the entire NRC exercise having been done on the aforesaid basis, the same cannot now be reopened.". In sum, the SC puts administrative convenience above the humanitarian disaster that will be created for lakhs of Indian citizens who may face separation from their families and incarceration in hellish internment camps. All this despite the view expressed by the judges just four days before passing their order that such exclusion would be contrary to the provisions of the Citizenship Act.

On the independence of the judiciary again, the Court has failed to be assertive. The entire basis for the judgment striking down the National Judicial Appointment Commission was that the collegium system is essential to the independence of the judiciary, which is part of the basic structure of the Constitution. And yet, a collegium recommendation of May 10 for the elevation of a particular judge as the Chief Justice of the Madhya Pradesh High Court remains unimplemented. The case questioning the non-elevation is now to be listed "on such date that Hon'ble the Chief Justice on the administrative side may fix". The lack of urgency on the judicial side is distressing.

Judicial historians are likely to pay keen attention to this period in the Court's history. Will this leave a future generation of SC judges as embarrassed as their brethren from the past?

The writers are senior advocates in the Supreme Court



RAJESH AGARWAL

THE APPRENTICE, REBOOTED

India's apprenticeship structure has been revived. Industry must help take it further

THE MOST CELEBRATED employer of apprentices is undoubtedly Donald Trump, who as the host of *The Apprentice* put contestants through a selection process culminating in the famous words, "You're hired!" As president, Trump set up a task force that calls for US education providers and employers to learn from the German apprenticeship model, which "helped lower unemployment rates and contributed to the country's economic success".

The Indian apprenticeship system has neither the celebrity employer nor the cultural moorings of the German system. However, the "guru shishya parampara" has existed for centuries. Making a clean break from the past, in 1961, the government ushered in the Apprentices Act, which was applicable to engineering, non-engineering, technology, and vocational courses. It constituted apprenticeship councils and advisors, and placed a statutory obligation on employers to engage apprentices with a stipend and in the ratio prescribed for designated trades. It also imposed a penalty of six months of imprisonment or a fine or both on the employer in case of non-compliance. Until 2014, when the Act was majorly amended, three significant transitions took place in the labour force.

First, employment in the primary sector (largely, agriculture) reduced from 76 per cent to 46 per cent, while increasing in the second-

ary sector from 11 per cent to 23 per cent and most significantly, in the tertiary sector from 13 per cent to 31 per cent. Second, the 1991 economic reforms brought in a golden age for the private sector which led to the number of companies increasing from 0.2 million in 1991 to nearly 0.9 million in 2014, with an estimated employment of 30 million. Finally, MSMEs grew exponentially from 10 million enterprises in 2003 to 46 million in 2014.

By 2014, the apprenticeship model had run out of steam. Its transformation was kick-started by a large-scale amendment of the Act in December 2014, followed by the introduction of the National Apprenticeship Promotion Scheme (NAPS) in 2016. The Central Apprenticeship Council also carried out reforms in July 2019 to expand apprenticeship opportunities.

Today, apprenticeship is a valid path for youth educated beyond grade five to acquire a skill. Their base stipend has been increased, technology has made contractual paperwork and processes seamless and opportunities in the service sector have been opened by making apprenticeships obligatory.

The prescriptive quota regime has made way for a percentage band of 2.5 per cent to 15 per cent, within which employers can decide the number of apprentices. Opportunities have been opened for the SME sector also,

with units having four or more employees now being eligible to keep apprentices either on their own or as a group of employers.

The results have been encouraging. More than 1.1 million candidates and 70,000 companies are now registered on the apprenticeship portal; annual apprenticeships have increased by 60 per cent.

However, challenges remain, which industry can support to address. First, government and industry stakeholders need to promote apprenticeships as a powerful learning tool. Second, MSMEs should leverage third party aggregators to create tailored apprenticeships. Third, although the regulations protect the apprentice's rights, the spirit of the law can only be upheld by the employer by creating a learning experience during the apprenticeship. Finally, the challenges of the new system need to be conveyed to the government periodically, so it does not suffer fossilisation again.

The time has come for India to have its own "celebrity employers" and model of apprenticeship — one which is dynamic, flexible, futuristic, inclusive, convenient, self-regulated and rooted in Indian socio-cultural and economic realities.

The writer is Joint Secretary, Ministry of Skill Development and Entrepreneurship. Views are personal



AUGUST 28, 1979, FORTY YEARS AGO

UP GOVT PRECARIOUS
THE BATTLE LINES have been drawn for the crucial showdown on the floor of the Uttar Pradesh Vidhan Sabha, which would decide the fate of the six-month-old Banarasi Das Ministry of the Janata (Secular). The Congress (I) has decided to vote against the government. A joint meeting of the state parliamentary board and the executive council was held in Lucknow under the presidency of Mohsina Kidwai and taking stock of the political situation, directed its legislature party to topple the Banarasi Das Ministry. Later, the Congress (I) Legislature Party meeting under the presidency of ND Tiwari finalised its strategy.

NAM STRATEGY
AT THE HAVANA non-aligned summit, India will go along with the line that representatives of neither the ousted Pol Pot regime nor the Heng Samrin regime now in control in Phnom Penh should be seated at the conference, despite the fact that, technically, the UN still recognises Pol Pot. This was the consensus that emerged at a meeting of the Cabinet Committee for Political Affairs, before External Affairs Minister SN Mishra left for Havana. On the question of the radical Arab demand for Egypt's suspension from NAM, Mishra's brief is to pursue the line that the Palestinian question was the crux of the problem and must be solved for peace in the region.

MOUNTBATTEN KILLED
LORD LOUIS MOUNTBATTEN was killed in an accident and immediately the provisional Irish Republican Army took responsibility for his death. The 79-year-old uncle jolt the Duke of Edinburgh was in his yacht, which was cruising off the Irish coast. Suddenly there was an explosion. The yacht was torn into pieces and Lord Mountbatten and others who were with him were thrown overboard. Along with Lord Mountbatten were killed his grandson and a friend. His daughter was seriously injured along with another friend and both are under intensive care in a hospital. The queen said she is shocked.

15 THE IDEAS PAGE

So that Jack can play

Why we need more facilities like Delhi's Siri Fort Sports Complex



CITIES AT CROSSROADS
BY ISHER JUDGE
AHLUWALIA AND
AYUSH KHARE

SIX YEARS AGO, one of us wrote about the Siri Fort Sports Complex in Delhi and the difference it was making to the quality of life of people residing in the city. We decided to revisit the complex to see how it has changed over the years and how it has coped with the fast growing demand for the facilities it offers. Our findings are very encouraging.

There are 14 sports complexes offering facilities for more than 30 sports which were established by the Delhi Development Authority (DDA) in Delhi over the years. They provide space, infrastructure, coaching and "pay and play" facilities at modest charges with discounts for school students and senior citizens. The three largest ones are the Yamuna Complex, the Commonwealth Games Complex and the Siri Fort Complex. From skating rinks and basketball courts to swimming pools and tennis courts, from squash, badminton and golf at Siri Fort to archery and table tennis at Yamuna, and of course, cricket fields, walking/jogging tracks, fitness centres, and yoga facilities — they provide an invaluable environment for recreation and exercise for Delhiites.

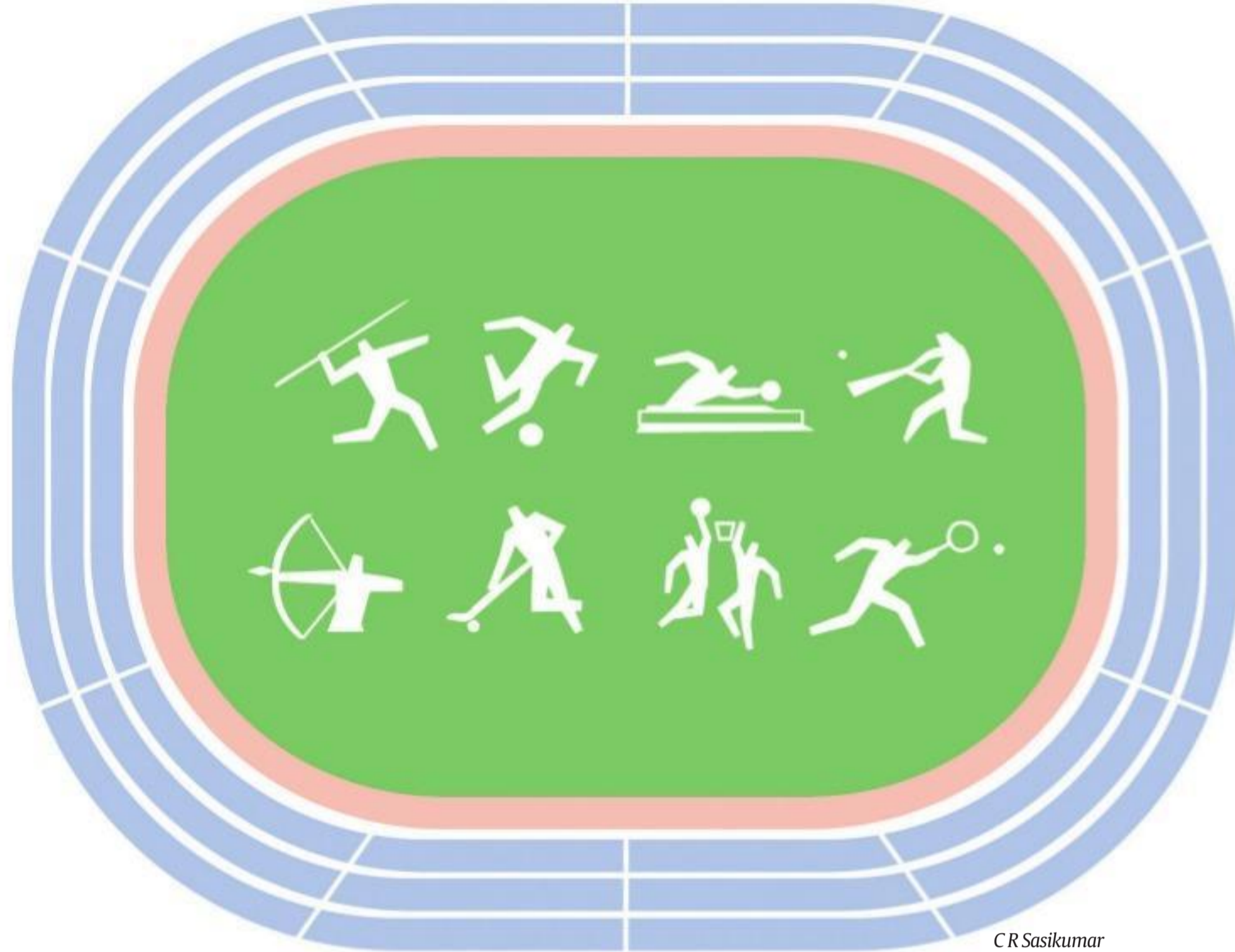
During our visit to the Siri Fort Complex, we found a large number of kids playing after school hours. We saw young parents bringing their toddlers to run around in the children's park next to the swimming pool or families coming together to play their favourite sport. In the evenings, office-goers stopped by for a few games of tennis, while senior citizens, pacing along the walking track, were a common sight.

On the cricket ground, we saw many young ones busy bowling and batting diligently at the nets. Some possibly harbour dreams of playing for India someday. Others have done it before them. The person showing us around pointed out, with some sense of pride, that Virat Kohli started his cricket with his coach Rajkumar Sharma at a similar but much smaller DDA facility at Hari Nagar.

The absolutely state-of-the-art squash and badminton stadium built by the DDA during the Commonwealth Games was there when we visited Siri Fort six years ago, but the growing enthusiasm for badminton in recent years could be seen in the much more lively environment we found inside the stadium. The 30 or so indoor badminton courts were all occupied. The stadium hosts several international tournaments such as the Thomas and Uber Cup and the Indian Open.

About 150-200 students come to the stadium for coaching and many more come for "pay and play". The tennis courts are some of the best in the city and the coach told us how he loved coaching the enthusiastic kids here even though he had to travel from another corner of the city. Siri Fort is also the only complex that hosts a golf driving range. The football ground is well maintained where kids dribbled and showed off their futsal skills.

The Siri Fort complex has blossomed with the years and seems to be meeting a crucial need of the residents of South Delhi for a place to walk, play, swim and to engage with



CR Sasikumar

each other. It is well maintained, well managed and has succeeded in creating a sense of pride in those who use it regularly — members and non-members, the young and old. The footfall in the last six years has increased by about 50 per cent. The complex will soon start its parking facility to accommodate nearly 850 cars. We were told that the senior officials responsible for managing the complex are themselves regulars and therefore have their eyes and ears to the ground.

We met with D Sarkar, commissioner (sports) of the DDA and were surprised to learn that he is a black belt in taekwondo and in his youth had worked as a junior instructor at the Himalayan Mountaineering Institute when Tenzing Norgay (the first man to scale the Everest) was the director of field training. Sarkar has been using his knowledge of sports to improve the infrastructure facilities at the sports complexes of the DDA and is also encouraging the youth to use these facilities. It is rare in government to find the right person for the right job, but Sarkar is one.

We also visited the other two large Sports complexes of the DDA — the Yamuna Complex and the Commonwealth Games Complex, to compare. The Yamuna Sports Complex in East Delhi is located in a busy residential area and is nearly twice the size of Siri Fort complex. There being less public parks as well as fewer private clubs in East Delhi, the footfall in the Yamuna Complex is about three times as much as in the Siri complex, although the number of members seems to be fewer. This renders its infrastructure inadequate, which in any case has suffered from disruptions in the course of its development. There was a visible difference in the maintenance of the facilities at the Yamuna complex. The badminton and squash courts looked worn out and we could spot puddles on the football field. The archery and table tennis stadia, which came up for the Commonwealth Games 2010, were a refreshing change. Some of the country's best archers come to practice in this fa-

The Siri Fort complex has blossomed with the years and seems to be meeting a crucial need of the residents of South Delhi for a place to walk, play, swim and to engage with each other. It is well maintained, well managed and has succeeded in creating a sense of pride in those who use it regularly — members and non-members, the young and old. The footfall in the last six years has increased by about 50 per cent.

cility. Some of the areas which were not required for the Commonwealth Games were left out at that time. There are now plans to develop the first proper skatepark of Delhi and a basketball centre within the complex.

The sports complex at the Commonwealth Games Village in East Delhi is the latest, having come up during the Commonwealth Games 2010. The Olympic size swimming pool and the running tracks were used by the athletes to practise and are some of DDA's best sports facilities. However, the complex could not be completed because of the order of the National Green Tribunal for no further building along the Yamuna floodplains. The Village has facilities only for athletics, badminton, swimming, football, taekwondo and table tennis — far fewer than all other sports complexes. Sadly, during the recent Lok Sabha elections, the facilities were shut and the complex was taken over by Election Commission officials for two months during the summer vacations.

We need more sports facilities like Siri Fort. But, to take full advantage of these facilities, we also need good quality air. Thanks to the windy weather and intermittent downpour, Delhi has been experiencing some of its best (or shall we say least bad) air quality in the last two months. The Air Quality Index (AQI) has dipped to the range of 50-75, labelled as "satisfactory" by the Central Pollution Control Board. A stroll on the walking tracks or a game of tennis, badminton, or football now would do a world of good. Let us hope that the powers that be do not become complacent about the quality of air because the downpour shall pass and winter will be back again. If only we can all work together to improve the quality of air, DDA Sports complexes like Siri Fort will help us breathe.

Ahluwalia is chairperson, ICRIER, Delhi, and former chairperson of the high-powered expert committee on urban infrastructure and services. Khare is a research assistant at ICRIER

WHAT THE OTHERS SAY

"The West has shed no tears for Iraq, Syria and Ukraine, which had gone through similar hardships. Now, it is turning Hong Kong into the forefront of the struggle with China, and, as usual, they will shed no tears for the city's misery."
— GLOBAL TIMES, CHINA

When his heartbeat dropped

In Srinagar lockdown, how a reporter gets news of his sister's miscarriage



ADIL AKHZER

LAL DED, THE Kashmir Valley's main maternity hospital, is just across the river from *The Indian Express* office. And yet, it took nearly eight hours for my family to reach out to me to try and break the shattering news — but they couldn't.

On Tuesday, August 20, my younger sister Aieman (26), an expectant mother, was admitted at Lal Ded hospital. She was expecting her first baby. The mood at our home in Umarabad, 10 km from the city centre, was ecstatic; the wardrobe in her room was filled with baby clothes, diapers and milk powder. Everyone was waiting for August 26, the day doctors had planned a caesarean.

From August 5, Kashmir was under a clampdown — an unprecedented information blackout meant that I had to travel to hospital every night to check on her. After finishing my work in office, a rush to the Media Facilitation Centre and jostling for space on one of the four desktop computers to send out my stories, I would dash to Lal Ded.

On Thursday night, August 22, as per my routine, I hurried to the hospital from the Media Facilitation Centre. My sister was undergoing some medical investigations. I was told that Aieman is doing well but there are some issues with the heartbeat rate of the child. I was assured it is normal. "Doctors have told me that everything is going well and the heartbeat rate is not a big concern," Aieman told me before I left, relieved, for office Thursday night.

August 23 was Friday — a strict curfew was back, the roads were blocked with spools of concertina wire and metallic barricades and the movement of civilians was restricted. I went out for stories.

At around 10.30 in the night, after filing my stories, I went for the customary visit to my sister. As I entered the room inside the hospital, I sensed all is not well. In the corner of the room, my father was sitting on the cement floor sobbing, and my sister's father-in-law, a heart patient in his late 60s, was trying to console him. "What has happened?" I asked them. There was complete silence broken by my father's whisper: "Doctors say there is something wrong with the baby," he murmured.

By reflex, I reached into my pocket, brought out my cell phone and tried to dial the number before I realised it is dead. I rushed to the office of the Resident Medical Officer (RMO). I asked her what has happened to the baby, she shook her head and said "sorry" — a word enough to draw the

life out of my legs.

Aieman was upstairs. I couldn't summon the courage to see her. I rushed back to my younger brother and he told me the story of the baby's death and his struggle to reach me during the day.

"Papa, at around 2.30 pm, doctors informed us that there is no movement of the baby. They told us that it means the baby is no more," Tabish told me in the corridor.

Tabish lovingly calls me Papa instead of Bhaiya. "Papa, I walked to your office twice but it was locked. I didn't know where and how to find you. When I was tired, I gave up and came back to the hospital, to wait for you to come".

When the doctors broke the news to Tabish, my mother and father were at home. With no access to information and all communication blocked, Tabish travelled home to inform them. He later travelled to my sister's home at Humhama, on the outskirts of Srinagar city, to break the news.

The drop in the heartbeat of my sister's baby couldn't be communicated, on time, to the senior doctor as the cell phones were dead. My brother told me that the hospital had to send a vehicle to fetch her and when she arrived in the evening, she could only re-confirm that the baby is no more.

The doctors at the hospital regret that the ban on communication prevented them from real time communication to the senior gynaecologist that could have saved the baby. My sister and her husband too have a regret — if the phones worked, maybe a single call could have saved their baby.

On Saturday, August 24, the distraught doctors administered medicine to my sister for induced labour pain. It worked. The baby came out, lifeless.

Our case was not the only one at the hospital. Every patient has his or her own story. One has been trying desperately to reach his family members in Pulwama because he has run out of money; an attendant from Bandipore, who had to send a message to her family about the critical condition of the baby through an ambulance driver. Tabish, who stayed in the hospital all these days and nights, told me many more stories — of despair, agony and helplessness.

I took the lifeless body of the baby boy in my lap, we boarded the vehicle and went to Humhama. As the parents of my brother-in-law and my parents had a last glimpse, we lowered him into the grave with moist eyes.

From the graveyard, I drove to the Media Facilitation Centre to attend the official press briefing, where the J&K government spokesman, Rohit Kansal, said that the "situation is improving".

Postscript: It has been five days since my sister's miscarriage. Most of our close relatives, my uncles and aunts, don't know about it. They might still be waiting for good news.

The writer is a senior correspondent with The Indian Express's Srinagar bureau. adil.akhzer@expressindia.com

LETTER TO THE EDITOR

PCI'S FAILURES

THIS REFERS TO the editorial, 'The wrong counsel' (IE, August 27). It is regrettable that the Press Council of India is dictating terms to the local media in Jammu and Kashmir. Unbiased media is reliable source of news, especially in an area like J&K. People rely on legitimate and independent sources of information, not government press releases. Freedom of speech and expression is a fundamental right enshrined in the Constitution which can only be suspended when an Emergency is declared. By taking the side of the government, the PCI has failed its mandate.
Deepak Singhal, Noida

CLIMATE CHALLENGE

THIS REFERS TO the article, 'The last window' (IE, August 27). India must, in order to keep up with the global phenomenon of climate change, shift its focus to deal with rising temperatures. One of the alarming effects of global warming is rising water levels which will, in the long term, result in the loss of land. This poses a major threat for all coastal cities and will trigger migration. India has a large coastline and it is in India's interest to take steps toward sustainable development to mitigate the effects of climate change.
Stuti Srivastava via e-mail

TOKYO BECKONS

THIS REFERS TO the editorial, 'The champion' (IE, August 27). Two years ago, P V Sindhu and Nozomi Okuhara had battled in a World Badminton Championship final for 110 minutes, the longest final in the tournament's his-

LETTER OF THE WEEK AWARD

To encourage quality reader intervention, The Indian Express offers the Letter of the Week award. The letter adjudged the best for the week is published every Saturday. Letters may be e-mailed to editpage@expressindia.com or sent to The Indian Express, B-1/B, Sector 10, Noida-UP 201301. Letter writers should mention their postal address and phone number.
THE WINNER RECEIVES SELECT EXPRESS PUBLICATIONS

tory. But this time, the final was over in 32 minutes. Sindhu had exacted her revenge. The Tokyo Olympics beckons Sindhu now.
Sanjay Chopra, Mohali

FOR ASIA'S SAKE

THIS REFERS TO the article, 'Asian cats, Western monkeys' (IE, August 27). India and China together can check Western powers dictating matters on Asian affairs. That at the current juncture would be akin to placing two sharp swords in one sheath. However, geopolitical demands should bring the two Asian powers together.
Suraj Bhadoriya Delhi

Learning from Keynes

Revive the animal spirits, investment will follow



VINAY BHARAT-RAM

NOW THAT THE euphoria over the projected \$5-trillion GDP number has calmed down, let us look at some ground realities. These could not be better summed up than by Harish Damodaran ('Death of enterprise', IE, June 29). To quote: "Since around October, even the big gains have been feeling the heat, with sales of everything — from cars, two-wheelers and trucks to consumer staples — slowing down. Worse, nobody knows when growth is returning. The slowdown, now clearly visible, could be the cumulative result of an extended investment famine, which, together with demonetisation, GST, agrarian distress and high real interest rates, has taken a toll on incomes and spending."

There is a little doubt that we are on the downward slope of a business cycle. While no two business cycles are identical in terms of their cause and duration, there are important lessons to be learnt from how they began and how they were tackled. The Great Depression of the 1930s began with the collapse of the stock market on the New York Stock Exchange in 1929 and well over a decade. Since then we thought we had learnt to tame such a depression thanks to the General Theory of John Maynard Keynes, who propagated that the basic cause of a downturn was the absence of aggregate effective demand. This was a consequence of people's preference to hold on to

money at a time of uncertainty. It followed that there would be a fall in the rate of saving and investment.

After the start of World War II, which presaged the recovery on account of the massive demand for armaments, Keynesian theory became the accepted wisdom in the developed world. There was, however, this rider: Fiscal conservatism is not desirable during a downturn in the economy and some deficit financing may be required even if it leads to a little temporary inflation. This was ridiculed specially by the Chicago monetarists, who claimed that a little inflation is like a little pregnancy which cannot remain "little".

Keynesian wisdom prevailed well into the Seventies with a further rider that there is a trade off between inflation and full employment. In other words, if full employment is the goal of policy makers, they should tolerate some inflation in the interim. If zero inflation is the goal, then full employment is unlikely. There was empirical evidence for this.

Keynesian theory was jolted during the Seventies. The first oil shock with a 400 per cent rise in oil prices halted growth in the industrial world, which gave rise to a phenomenon known as stagflation. Keynesian wisdom was in question, although Paul Samuelsson vigorously defended Keynes saying that stagflation — a combination of stagnation and

inflation — was the consequence of a supply shock and quite consistent with Keynesian theory. However, the tide turned against Keynes with the second oil shock of 1978.

In the meantime, redemption came to Friedrich von Hayek, Keynes's lifelong rival, who was dead set against monetary measures to tame the business cycle. He gained traction in the Eighties when Margaret Thatcher in the UK and Ronald Reagan in the US adopted his ideas, which led to prosperity. Milton Friedman, Hayek's protégé, became the leading light of the monetarist school at the University of Chicago. Consequently, the economics profession got divided between the salt water (those economists associated with the universities on the eastern or western seaboard of the US) and the fresh water ones (associated with Chicago and the universities around Lake Michigan). The former called themselves the New Keynesians and the latter, the New Classics. The New Classics, who had their say from 1978 onwards, faced the Great Recession in 2008.

The Great Recession was unquestionably a financial crisis beginning with irresponsible housing loans in America, which spread to the entire banking system in the Western world. So, comparing the two downturns, what lessons can we learn for India? One important point brought out by Thomas Piketty's num-

bers is that high growth and low-income inequality prevailed during the Keynesian years (1945-75) compared to the periods before and after that.

In India, income uncertainty and the desire to hold on to the money was in all probability triggered by demonetisation and later, by initial hiccups of the GST plan. Macroeconomic policy, however, was more in tune with the Chicago school. That is, zero tolerance for inflation without concern for the possible impact on employment. The consequences are before us. India has managed low levels of inflation and achieved targeted budget deficits, but look at the state of employment. Never have we had such high levels of joblessness. And with no concern about Piketty's numbers, we are trying to control the disparity between the rich and the poor through taxing the upper layer without a care about declining growth numbers.

What we need is low real interest rates and greater liquidity in the system to revive the animal spirits of businessmen. Only then can greater investment follow. This is a time to take some lessons from Keynes and possibly retain some advisors from the "salt water" school of thought.

Bharat-Ram is the author of Evolution of Economic Ideas