

# Opinion

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## Rational Expectations

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### Will tech help India leapfrog?

Tech can be a force-multiplier in, say, health- and credit-delivery, and the good news is that India is starting to use it effectively

**RECALLING THE CITIZENSHIP** Amendment Act (CAA) isn't the best way to bring in the new year given how CAA-NRC-NPR protests tore into India's social fabric. The purpose of this, however, is that when PM Narendra Modi addressed CAA at Ramliha Maidan, the police used Automated Facial Recognition System (AFRS) to screen the crowd. AFRS probably violates privacy laws and recalls the all-seeing Chinese state, but this is one of many new technologies that will get traction in 2020.

While many despair of the government's sluggishness in fixing the collapsing economy, the good news is India's tech future looks less iffy and, given its momentum, this can help alleviate some of India's pressing problems. Tata group chief N Chandrasekaran argues that 'bridgital' will help create 30 mn jobs by 2025 and, more important, give over 200 mn citizens better access to services like health and education. India needs 0.6 mn doctors, 2.5 mn nurses, 1 mn teachers, etc; digital technology will help bridge this gap.

India's flourishing start-up ecosystem—India has the third largest number of unicorns in the world, and this is projected to rise four-fold by 2025—is also focused on societal problems. Of the 9,000-odd startups founded in the last five years, 1,050 are healthtech and 20 agritech; 18% of startups leverage AI, blockchain, BigData, robotics, etc. The Aadhaar Stack, and over the next 5-10 years, the Health Stack, show the startup ecosystem is not just focused on copying US business models in the way Flipkart's founders copied Amazon.

The India Stack was about apps that built upon Aadhaar—DigiLocker, eSign etc—and provided facilities that, in the past, were simply not available to citizens. NPCI's UPI has emerged as a world-beater in terms of payments transfers (even Google and BIS, [bit.ly/39oa0Mg](https://bit.ly/39oa0Mg), are recommending it to the US Fed and other central banks); India adopted a four-pillar approach of providing digital financial infrastructure as a public good, giving private players open access to this, regulating a level playing field, and ensuring individual consent needed for data-sharing. Within just 40 months, merchant payments via UPI outstrip debit and credit cards that have been around for decades by a third.

That is just the beginning of the UPI—and India's start-up—story. At the *FE IT Awards* ([bit.ly/3576gLT](https://bit.ly/3576gLT)) panelists pointed out, India's fintechs are using UPI and other data—from merchant sales through Amazon/Flipkart, and soon GST—to create a wealth of data so as to lend to SMEs who, traditionally, find it difficult to get loans from banks. Millions of customers, two bankers on the *FE* panel said, are already benefitting from lower-cost loans thanks to the use of AI and machine-learning in financial services. All of this is happening today, it is not a possible idea in the future depending on whether the government does this or that; within a few years, as credit-starved India gets more formal credit, the boost to growth is a given.

The growth of both DigiLocker and eSign are also a testimony to how business processes have become much simpler. Former Infosys CFO Mohandas Pai talks of how, for large banks, the customer on-boarding time is down from six days to one hour using Aadhaar-based eKYC, eSign, and DigiLocker, and from one day to four minutes for telecom companies.

On agriculture, similarly, precision-farming is being carried out for potatoes in Gujarat using drones/cameras that monitor the crop, regular inputs of weather data/forecasts etc are analysed by AI to aid farmers, fraud detection is being done for insurance using drones and, with physical inspection by *patuaris* no longer required, crop claims can be settled in hours. Obviously, agriculture will get a big fillip if various state governments started using drones and other such services, and if land records were digitised and made public, even combined with soil and other records, but a start has already been made; in fact, with the government pressuring insurance firms to settle crop claims faster, it is just a matter of time before the *patuvari* system of physical inspections is a thing of the past.

Though it is early days, thanks to Ayushman Bharat issuing 1.1.8 crore health cards, the Health Stack is off to a good start. Like its predecessors—Rajasthan's Bhamashah—Ayushman is also riddled with fraud but, over time, as Aadhaar and AI/Machine Learning are used, this could be fixed. Indeed, with such a large base of users, the government can bring down health costs dramatically; it leveraged this to, for instance, reduce the prices of LED bulbs and Aadhaar-fingerprint readers by 85-90% over the past few years.

It is obvious that, for India to really progress, the government needs to get its act together and Indian firms need to aggressively invest in R&D to create new products—the world's most valuable companies are tech ones and, even in traditional manufacturing and services, embedded tech is the key differentiator; also, tech adoption times are shrinking many times over. India is making some progress here—over 50% of the 4,610 patents filed in the US by India-domiciled firms were by Indian firms, just a fourth by MNC research centres—but China is way ahead. In the new year, though, let's celebrate what we are most likely to achieve.

## Standing FAST

Research shows how adept malaria mosquito is at developing resistance, this time mediated by protein present in its legs

**MALARIA KILLED** 405,000 people in 2018. So, it isn't hard to see why the Sustainable Development Goals call for countries to act to eradicate it by 2030. However, the fight against the disease just got tougher. While resistance to a host of anti-malarials—including the wonder-drug artemisinin—is getting reported with alarming frequency, new research shows exactly how *Anopheles gambiae*, the most common malaria vector, is evolving resistance to potent insecticides.

Insecticide-treated mosquito nets helped reduce incidence, but, over the past few years, *Anopheles* has developed strong resistance to pyrethroids used in these nets. Earlier, resistance from mutated genes coding for a sodium channel protein that reduces the mosquito's neuronal sensitivity to the insecticide and "enhanced metabolic activity of detox enzymes that promote the breakdown of insecticides" had been reported. Now, the new research, reported in *Nature*, shows that pyrethroid-resistant mosquitoes, additionally, have higher-than-normal expression of genes coding for chemosensory proteins, involved in insect communication. Given SAP2 expression is significant in the mosquito's legs, resistance kicks in right from the moment a mosquito lands on the net. While the new research shows how this particular channel of resistance can be choked off, it also shows how fast insects could evolve to develop resistance in unexpected ways, making the fight against malaria more difficult.

DEMOGRAPHIC CHANGES, INCOME INEQUALITY, CLIMATE CRISIS, AND THE HIGH-TECH REVOLUTION WOULD FORCE OUR HAND TO MAKE SIGNIFICANT CHANGES IN ALL ASPECTS OF NATIONAL LIFE

## THE REAL MAINSTREAM

# What the next decade holds for us

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**THE THIRD DECADE** of this century could be make-or-break for us. I say this because this decade would bring some massive challenges, but also equally significant opportunities to do things differently and sustainably. Four key drivers would influence the decade of 2020-2030.

**Demographic changes:** We are going to witness some huge demographic milestones in the next ten years. Our population is going to touch 1.5 billion, and we would become the most populous country in the world. We would also have about a billion people in the age group of 15-64 years. No country in human history has had so many people in the working-age group as India would have in 2030. To top all this, we would, by far, have the largest number of millennials in the world—about 750 million. Half of them would be in the age group of 15-30 years. So, by 2030, we would have not only the largest population but also the largest number of young, educated people looking for well-paid jobs.

**Income inequality:** In the current economic structure, the decade is likely to witness an increase in income inequality. India is already one of the most unequal countries in the world—1% of the population holds more than 70% of the wealth. In a business-as-usual scenario, this chasm in wealth between the rich and the poor would widen further, carrying the immense potential for tensions and conflicts in our society.

**Climate crisis:** The decade is critical for the climate crisis. We will not only start to witness its worst impacts, this is also our last chance to keep the rise in temperature within safer limits. As per the IPCC's assessment, to limit warming at 1.5°C, CO2 emissions have to be reduced by 45% by 2030, and reach net-zero by 2050. This means maximum efforts are needed before 2030. If we fail to act decisively in this decade, the task of keeping temperature increase under even 2°C would be impossible.

**Hi-tech revolution:** The decade

promises a hi-tech revolution in every sector. Many of the cutting-edge technologies in food, energy, transport, health, and information and communication technologies (ICTs) would become a reality. Technologies that have been in the realm of science fiction would be available to the general public—be it plant-based meat, driver-less cars, electric mobility, artificial intelligence, or 24x7 renewable energy. This revolution has to be harnessed to solve some of our most intractable problems.

This quartet of drivers would put massive stress on our society. The existing governance system, economic and social structure, and technological milieu would not be able to deal with these significant challenges. But, these challenges also are an opportunity to make big-ticket governance reforms, and technological changes. The question is, whether we would be able to grab these opportunities and chart a new course of action, or if we would keep chasing the problems as we seem to be doing today. My answer is that we have no option but to change as the four drivers mentioned above would force our hands. Let me illustrate this for a few key sectors.

**Energy:** We currently depend on coal, imported oil and gas, and biomass to meet most of our energy needs. These are highly polluting sources of energy and also contribute to global warming. We continue to use them because they are "cheap" and readily available 24x7. But, we are at a cusp in renewable energy technologies. Renewable energy, along with storage technologies reaching grid-parity and even outpricing conventional sources of energy, is on the anvil in this

decade. Besides, modern technologies, like 5G and Internet of Things (IoT), would truly bring energy under our control. The favourable economics of 24x7 renewable energy would mean that we would be in a position to use electricity to meet most of our energy requirements—from cooking to lighting our houses and shops, to running our factories and transport systems. Instead of multiple infrastructures to meet our energy needs—petrol pumps, gas pipelines, electric wires, and coal freights—we can start shifting to one infrastructure: electricity. Such a shift would have massive energy security, and pollution and climate change benefits. Also, our industry could become a leader in energystorage technologies and ICTs.

The risk of not making this shift includes volatile energy prices, energy insecurity, pollution, and global warming. Most importantly, our industry would lose the opportunity to grow and create high-quality jobs. The choice is clear: India would need to embrace the vision of clean energy transformation to reduce pollution and remain competitive.

**Urbanisation:** We would have more than 600 million people living in at least 9,000 cities and towns by 2030. Around 70 of these cities would have a million-plus population. Presently, our cities are becoming unliveable and failing to provide essential services to all. This is mainly because of the weaknesses in

municipal governance. The current system of municipal management is incapable of making our cities liveable, smart, and green. But, if we want our cities to be engines of growth and provide jobs to the millions of millennials that would be entering the job market every year, we have no other option but to reform municipal governance. We would have to devolve powers and provide more resources to city governments, and use modern technologies to make them professional, transparent, and accountable. Though there would be resistance from the central and state governments to this, the governments would be forced to give in as the current system would be unable to handle the urban chaos.

**Climate change:** Even if, by some miracle, we can keep global warming to below 2°C (we are on track for a temperature rise of over 3°C), we still have to deal with adverse impacts of the climate crisis. The world is already witnessing extreme weather events like floods, droughts, heat and cold waves, sea-level rise, and melting of snow caps. We will, therefore,

have to start adapting to these changes. Adapting to the changing climate would require building resilience in every part of the economy, be it urban infrastructure, agriculture, or water system. Without these, the loss and damage, including loss of lives, would be too high to bear. Here also, we have no other option but to mainstream climate change in all aspects of our national life. Similarly, we would be forced to make major significant structural changes in sectors such as agriculture, forestry, and healthcare.

The coming decade would present us with stark choices. But, the writing is on the wall—we need to embrace change and safeguard the nation for generations to come.

**The quartet of drivers would put massive stress on our society. But, these challenges are also an opportunity to make big-ticket governance reforms**

## Climate science confirms what we know

If there is any controversy now among scientists, it is over whether they were too reluctant to sound the alarm about extreme events in the past

**OVER THE LAST** decade, scientists learned a great deal about the climate, much of it concerning the connection between global warming and extreme events—heat waves, hurricanes, floods, droughts and wildfires.

There has been, for many years, an understanding that a warmer world would be a more temperamental one, and measurements upon measurements show the average temperature is rising in step with those predictions. But, until recently it was hard to prove that our changed atmosphere was having an influence on extreme events, which, after all, have been drowning and parching and starving people long before anyone started burning fossil fuels.

Asking whether climate change caused a particular wildfire or hurricane is the wrong question, said Benjamin Cook, a climate researcher with the Lamont-Doherty Earth Observatory. But in the last decade, the ability to model the climate has advanced so much, he said, that people can determine whether human-generated global warming made a storm wetter or a drought longer than it otherwise would have been. Such attribution, he said, is the biggest advance of the 2010s.

"This is important because extreme events are really where the impacts of climate change are being felt", he said. It is not necessarily alarming to hear that global temperatures will creep up another couple of degrees, but it is another thing to realise that human activity contributed to a string of deadly heat waves in Europe—with temperatures climbing well above 108 in Paris—as well as the apocalyptic fires that destroyed what had been some of the most beautiful parts of California. "There's a clear climate change signal", he said.

If there is any controversy now among scientists, it is over whether they were too reluctant to sound the alarm about extreme events in the past. There was a reluctance to make recommendations based on probabilities and

reasonable assumptions. Now there is evidence to back them. Over the last decade, climate researchers have been filling in gaps in their data on past temperatures, and improved models that are calibrated against the past to predict the future. That has led to better predictions for weather as well, thanks to more complete data, better science, and more computer power.

There is more data on cloud formation, on precipitation, on ground water and on what is happening underneath ice shelves, said Gavin Schmidt, director of NASA-Goddard, Institute for Space Sciences. All that basic knowledge has come about from an exceptionally productive ten years of remote sensing. The Arctic is warming faster than lower latitudes, and this is affecting the wind patterns—especially the jet stream. Researchers say that a weakening of those winds is part of the reason storms such as Hurricane Harvey stall, and dry air lingers in other places for weeks.

Kevin Trenberth, a climate scientist at the National Center for Atmospheric Research in Boulder, Colorado, now on sabbatical in New Zealand, said that he has been arguing since 2010 that extreme events are now happening in a different environment.

Because we have increased the earth's atmospheric carbon by more than 40%, the oceans are warmer, and the air above the ocean is warmer and wetter, and the sea level is already a little higher. That contributes to making storms more intense, with heavier, prolonged rainfall, as people witnessed with Harvey in Houston and Florence in the Carolinas. The planet's dry climates are getting drier, and the wet, wetter.

Global warming is also heating the world's oceans, and this, too, is not uniform. Trenberth said and they can now track marine heat waves, which are killing coral and sea life from the Gulf of Maine to the Great Barrier Reef. A decade ago they could measure the ocean's temperature down to 700 meters, he said; now they can track it to

2,000 meters. "We can actually see that heat penetrating down into the oceans". The oceans have absorbed most of the energy that has been trapped on Earth by added greenhouse gases. Some are worried they are losing their capacity to buffer global warming.

A decade ago, there was already more than enough evidence to justify an effort to cut emissions. Scientists had reached a consensus that it was time to act. But, a disinformation campaign was creating a different picture to general public, with hackers stealing scientists' personal emails, and various bloggers and media outlets launching personal attacks against them.

Adding fuel to the situation was a loss of trust in all of science following the so-called replication crisis, in which social science was exposed as contaminated with flimsy and erroneous results. Much of established nutrition research was overturned, and many medical findings were deemed impossible to reproduce. But, this had nothing to do with basic, well-established physics and Earth science. The periodic table didn't get torn up, electricity still works as predicted, and Einstein's pedestal has only been elevated.

It was way back in the 1800s that French mathematician Joseph Fourier realised that our planet should be frozen down to the equator, considering it orbits at a distance of 93 million miles from the sun. It didn't take long to realise that the small fraction of our atmosphere made up of carbon dioxide was keeping our planet warm, and that adding substantially to that will make it a lot warmer.

"What's notable is what hasn't changed" over the last 10 years, said Penn State climate scientist Richard Alley. "Carbon dioxide goes up the temperature goes up, ice melts, and there's a migration of plants and animals".

Thus, the climate forecast for the 2020s is warmer and more eventful.

*This column does not necessarily reflect the opinion of the editorial board or Bloomberg LP and its owners*

## LETTERS TO THE EDITOR

### BJP's CAA campaign

Sadhguru Jaggi Vasudeva's video in support of the Citizenship Amendment Act (CAA) came in handy for the BJP to drum up support for the new law. As a dyed-in-the-wool Hindutva exponent and a pillar of the Hindutva edifice, the Sadhguru cannot take a view contrary to BJP's on any issue. What is more, the spiritual guru and PM Narendra Modi make a mutual admiration society. BJP's pro-CAA campaign in the coming weeks cannot be run without relying on half-truth; it won't ask people to read or look at CAA in conjunction with the NRC or NPR for fear that its lies will be easily seen through. BJP will go to great pains to explain that the CAA enacted as part of remaking India is not at all discriminatory; but then it will be a task as difficult as transmuting an untruth into a truth. Clearly, PM Narendra Modi has failed to put his foot down and make the headlines in the Sangh Parivar stop superimposing Hindutva agenda on the bread-and-butter issues of politics despite the parliamentary majority he won almost single-handedly. As is its wont, BJP will try its best to market the CAA as a piece of legislation meant to accord citizenship to 'persecuted minorities' concealing the fact that none but Muslims alone will be left out. Like it or not the CAA is a failure of imagination. Ironically enough, the self-styled nationalists are underestimating the intelligence of the country's youth out in the streets protesting against a law that strikes at one of the basic principles of the Constitution that we live by—equality of religions. An expectant mother who wants the CAA scrapped has put it eloquently: I want an inclusive and compassionate society for my child. Let us all make it one of our New Year's resolutions.

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# The difficulty of being honest

The honest go on, driven by an inner force that burdens on recklessness. A society that creates hurdles to exhaust the honest or wound them, paves the path for its own perdition

**H**ONESTY IS THE best policy" was a favourite topic of debates in school. It is another matter that both sides—for and against—ended up supporting the motion; the only point of difference being whether honesty was its own reward or it came with an avoidable cost.

One could wonder at the wisdom in this dictum. A policy by definition is something that is adopted after weighing the pros and cons of various alternatives. It is defined as "a way of behaving

that you think is best in a particular situation", or as "prudent or expedient conduct or action". In either case, it is a well-considered approach, not merely the ingrained response of an individual based on inherent values.

Is honesty to be understood as a pragmatic way of dealing with situations or is it simply an ethical response to any given situation influenced by an individual's character? When an individual is faced with a dilemma of making a choice, he either responds instinctively or makes a well-reasoned decision. For instance, an

auto driver finding a passenger's purse in his vehicle, may decide to look for the passenger, deposit the purse in a police station, or report the matter to his owner. As long as he doesn't keep the money with him, he may have acted honestly. His honest act may or may not be rewarded, but he has chosen to exchange the pleasure of pocketing the money with the comfort of his conscience.

That, however, is a simplistic example. Honesty as a policy always comes with a price. It demands a premium like an insurance policy, although it might appear not to command a premium or provide any insurance. The path of honesty, like *dharma*, is straight yet seldom simple. It often turns out to be tortuous, consumes more energy, sometimes even damaging the vehicle because of unfavourable road conditions. The honest, however, go on regardless, perhaps driven by an inner force that borders on recklessness. A society that creates hurdles which exhaust the honest or wound them paves the path for its own perdition.

At the same time, should honesty be an obsession? Should it drive itself so hard that nothing survives save itself? No system would benefit by such a compulsive pursuit of a sacrosanct principle that believes in preserving itself regardless of the outcome of the task at hand. No system can be productive if it is obsessed with defining the idea of honesty narrowly and subjecting everyone to a hidebound, arbitrary ideal. The outcome of such a narrow approach would be a society of persons with their chastity belts seemingly intact but with little else to show.

Honesty is not a fetish to be preserved and worshipped without being practised. It is like keeping a toilet clean without using it. Toilets are meant to be used; if kept clean they will be used more.

The honest, one could say, are those who are honest to their job and achieve the desired result by adopting honest means, being neither unduly swayed by the pressure to perform at all costs nor weighed down by passive principles that shackle performance. For example, in the

case of a civil servant, accommodating popular expectations is not necessarily an act of dishonesty; succumbing to the pressure of the present is.

If a public servant decides to accommodate the genuine concerns of an individual without compromising public interest, it cannot be termed a dishonest act. Interventions to resolve such individual difficulties cannot be treated as favours to individuals. Discretion at senior level becomes necessary because sometimes people find it impossible to wade through the mire of regulations and deal with the cussedness of the system that disregards the peculiarities of an individual situation. Obsession with the appearance of non-discretionary application of rules would create an army of inert bureaucrats who would delight more in the preservation of rules than finding solutions to problems.

The Prevention of Corruption Act is meant to be a deterrent against exercising judgement with *mala fide* intent; if it throttles individual initiative taken in right earnest, bureaucrats would be more servants and less civil. Civil servants have to solve problems without being shackled by the fear that their discretion in resolving a difficulty could be regarded as acts of undue benevolence. If their ability to resolve problems is curbed by such a shining armour around them, civil servants may end up as an unscathed army of defeated warriors.

The essential characteristic of an honest person is that he or she is truthful. His action is based on an inner voice that guides him to make a distinction between what is right and what is wrong, generally influenced by the prevailing law, his moorings and morality. There is seldom a conscious risk analysis of consequences. Therein lies the difficulty of being good. Someone would call it foolhardiness, *bravado* or tactlessness; tact being the "*kawach*" of successful civil servants.

There is a price for honesty as for everything else in life. Being prepared to pay that price, directly or by way of collateral damage, is part of the honest act. The price depends on who bears the brunt of honest action. The honest is that honesty is its own reward and it is recognised in the long run. In the real world, "the long run" could be unpredictably long. A quiet and prolonged grind could follow the fleeting drone of feeble praise. It is naive to expect those that have been opposed by the honest to meekly accept the ascendance of the meek. They strike back and the price for the honest could be in the form of lonely suffering, even noticeable isolation. The honest could be shunned by friends and foe alike. It is an interesting interplay between those who dread the fearlessness of the honest and those that fear the generally dreaded.

It would be mawkish to think that those who do not stand by the honest are dishonest. People are generally good; they are also generally timid. Fear cannot always be associated with evil, just as fearlessness cannot be always associated with good. The absence of fear gives courage. Without courage honesty is a pathetic virtue.

The honest may not be physically strong or powerful; they have courage and that courage is their strength. Those that do not stand by them in that hour of grief, need or isolation, might not be courageous. They are like spectators who rise to applaud after the drama. Even if they empathise with the actor, they don't take part in the play. They may watch the protagonist suffer, even shed a tear at his plight, offer a silent prayer in his favour and wait for the denouement before they laud his part. They are either happy at the outcome or rue the tragedy. After all, what is drama if there are no silent spectators? They face the dilemma of "to be or not to be". As far as the protagonist is concerned, however lowly or mighty he might be, he is convinced that his honest deed, whether instinctive or a conditioned response of his character, is the best policy after all.

● RERA & IBC

## The real solutions for real estate

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Build the capacity of RERA as the first point of grievance redressal

**R**ECENT ANNOUNCEMENTS by the FM involving financial stimulus for the revival of the real estate sector are nothing but a reaffirmation of the importance of the sector. Estimates by the NITI Aayog show that the sector has a size of more than ₹8 trillion and accounts for 7% of GDP. It is also estimated that real estate will reach a size of ₹45 trillion by 2040, by when its share in GDP will rise to 14%. By then, the jobs generated in the sector will increase from 55 million to 66 million. Yet the sector has been subject to various challenges of late, raising doubts about growth projections.

From demonetisation to GST, developers have taken a hit. The NBFC fiasco and the ensuing credit shortage led to the collapse of liquidity in the market. Economic slowdown resulted in unsold properties in metros. In the midst of these challenges a fundamental shift in the role and outlook of homebuyers transpired. Earlier, homebuyers used to approach consumer courts to redress their grievances. Then came the Real Estate (Regulation and Development) Act, 2016, or RERA, which can become a meaningful platform to address the grievances of homebuyers in a systematic way.

The government did not stop there; it brought an amendment to the Insolvency and Bankruptcy Code, 2016, in August 2018 to allow an individual homebuyer to initiate the Corporate Insolvency Resolution Process against the National Company Law Tribunal (NCLT). The amendment has given homebuyers the status of 'financial creditors'. This provision was upheld by the Supreme Court in August 2019. Though the sentiments of homebuyers are to be taken into consideration, it has resulted in doing more harm than good.

As per government estimates, 1,821 cases filed by homebuyers against builders since June 2018 were pending in the NCLT as on September 30, 2019. Instead of finding feasible meaningful solutions, the issues are being aggravated. The piling of cases in the NCLT goes against the very objectives for which the IBC has been formulated, and it would help neither genuine homebuyers nor sincere developers.

The provisions allow any allottee to trigger insolvency. This allottee could be a genuine homebuyer or a speculative market maverick. The amendment has given homebuyers a seat in the committee of creditors so they can either remove the management or vet a resolution plan. When a party with vested interest appears as a genuine homebuyer and leverages on IBC provisions, it will affect other customers who should have been delivered their apartments. The treatment of homebuyers on a par with banks forces banks to limit the supply of credit to the sector. By including homebuyers in the explanation of Section 5(8)(f) of the IBC, other remedies such as RERA or civil and criminal laws are sidelined.

While the acknowledgement by the government for the need to amend the IBC is a welcome step, it needs to be pursued in a time-bound manner. In this regard, the latest decision by the Union Cabinet to approve a proposal to promulgate an ordinance to amend the IBC 2016 should help ensure smooth implementation of the IBC. Also, a pragmatic suggestion is to build the capacity of RERA as the first point of grievance redressal. If the parties fail to reach an amenable resolution at RERA and all other provisions get exhausted, majority homebuyers could approach the NCLT for resolution mechanism. Else, there is no doubt that the IBC in the current form will play havoc to the promising NCLT. Instead of strengthening the NCLT, the amendment implemented in June 2018 in the IBC has weakened the institution by fostering more cases getting posted there. It does not help bankruptcy procedures nor the issues in the housing market.

It's time the government expedites the process of revisiting the amendments that have given homebuyers such an option, which, in the current form, has the tendency to further burden the NCLT with insolvency cases invoked by lone/speculative homebuyer even against genuine real estate developers. This situation, if left unaddressed, is likely to translate into more woes for genuine homebuyers who were the intended beneficiaries of this amendment in the IBC. The growth of the real estate sector is important if the economy has to fire again. That growth will only happen if constraints dogging the sector are identified and removed.

**C**OMPREHEND THE disappearance of serpentine queues of cargo-laden trucks at checkpoints, *chungis* and interstate entry points, which, until lately, were ubiquitous? An empirical testimony of the benign effects accruing to the country's vital logistics sector from GST is well-gleaned from a senior journalist's narration of his 1,288-km, 42.5-hour recent journey from Sriperumbudur (near Chennai) to Bhiwandi (near Mumbai) on a truck laden with 174 air conditioners and 63 refrigerators. The erstwhile interstate border tax checkpoints having been dismantled, the truck took just half the time compared to the usual four-day travail in pre-GST days.

Article 301 of the Constitution aimed at India functioning as one single economic unit without barriers, promoting free flow of trade and commerce through the country's territory. But for 70 long years post-Independence, India remained a fiscally 'disunited union of states'. Like post-World War II European countries successfully forging a common market, tearing asunder inter-country customs barriers and other checkpoints, GST has ushered in a 'united states of India'.

It is GST that helped the country sign a free trade agreement with itself, integrating India into a single market. The Republic is now unified through the indirect tax law in a way analogous to the 1833 Zollverein, German Customs Union, forged as a coalition of German states to overcome hundreds of customs barriers where shipments were inspected.

Analysing the cost of not completing the European Community's internal mar-

## GST and 'united states of India'

How GST helped the country sign a trade agreement with itself, integrating India into a single market

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ket integration, the Paolo Cecchini report, *The European Challenge, 1992*, concluded that the border and associated administrative procedures cost 1.8% of the value of goods traded within the Community, that the integration process could result in 4.5% increase in GDP over six years, in addition to consumer prices declining to the extent of 6%. With GST being legitimately becoming a reality, India too legitimately hopes to reap a similar harvest.

India's logistics sector, with four broad components—transportation (60%), warehousing (25%), freight forwarding (10%), and value-added services (5%)—is estimated to constitute 14-15% of the country's GDP vis-à-vis some 8% in OECD economies. A joint survey in 2011-12 by

the Transport Corporation of India and IIM Calcutta revealed an annual loss of about ₹27,000 crore to the economy owing to detention to road vehicles at checkpoints and en route for documentation, physical checks of vehicles, drivers and cargo by RTO/police, and payment of highway toll and taxes, as well as harassment and corruption. The on-road stoppage expenses including illicit payments amounted, on average, to 15% of total trip expenses. Additional fuel consumption due to delays and slow speed of vehicles led to annual costs of ₹60,000 crore.

A McKinsey study, *Building India: Transforming the Nation's Logistics Infrastructure*, estimated that India was saddled with logistics inefficiencies that cast



a heavy burden equivalent of about 4% of its GDP. Among salient benign benefits accruing to the economy under GST are two important aspects: one, the geographical centralisation of production and warehousing, thereby centrally-located states gaining an edge in attracting economic activity, as well as its agglomeration in the more productive states; the other crucial element of change across the business spectrum—from the location of production to logistics and supply chain—has the potential of transforming the country's economic geography itself.

Crisil found that implementation of GST in the logistics industry would reduce logistics costs up to 30% over 3-4 years. An early assessment survey by the ministry of

road transport and highways found that post-GST, checkpoints and barricades when removed from state borders, the cargo-carrying vehicles on highways "doing a 2,000-km round trip in a week would save 40-45 hours of travel time," effecting annual savings to the extent of ₹30,000 crore.

Despite an increase in compliance and adjustment costs in the initial stage, warehousing and logistics hubs are the most affected by GST in the entire supply chain. A medley of taxes had rendered the logistics industry cumbersome and costly. Inventory and distribution centres were earlier located on consideration of central sales tax and state VAT rates, rather than operational efficiency. GST freed the decisions on warehousing and distribution from tax considerations. The old suboptimal scattered and fragmented warehouses are yielding place to strategically-located large logistics parks conducive to economies of scale, efficient use of multimodal transport, and availability of value-added services under one roof.

Warehousing clusters are emerging near prominent distribution hubs such as the Bhiwandi-Panvel cluster in Mumbai, Chakan-Talegaon and Wagholi-Ranjangaon in Pune, Hoskote-Narsapur and Nelamangala-Dabaspet in Bengaluru, Sriperumbudur-Oragadam and NH5-Periyapalayam in Chennai, Jeedimetla-Medchal in Hyderabad, Changothar-Bogodara and Aslali-Kheda in Ahmedabad, and NH48 and Ghaziabad in NCR.

The GST Network (GSTN) has an audit trail of the movement of goods across the state boundaries, helping optimisation of delivery schedules and operational costs of transporters. Certainty of tax and better

compliance interests global logistics players, who, through FDI, JVs or acquisitions, would help propel Indian logistic industry to global standards and competitiveness.

Relevant to the truck journey he took, the aforementioned journalist incidentally highlights the potential efficacy of FASTag, enabling trucks to breeze through toll plazas; he underscores the need for the format and monitoring mechanism of eWay Bill to be streamlined for uniform thresholds, and to do away with mobile tax squads—he also flags the pernicious practice of extortion and bribe that persists in devious forms at interstate RTO checkpoints. These must urgently be removed root and branch. Surely, some efficacious technological and systemic procedures can well be adopted to serve the purpose.

While the government explores how technology can be leveraged to set up a logistics architecture on the lines of the Aadhaar and link it to GSTN database, AT Kearney has suggested in its report, *Logistics Efficiency Enhancement Programme*, that RFID (radio frequency identification) tags on vehicles for electronic toll collection and GPS devices would provide the building blocks for this initiative, and help access information regarding the consignment, vehicle, driver and location, thereby enabling verification. The report recommended a common system to link GSTN database with Vahan and Sarathi (envisioned as a centralised repository of driver-related information), to allow for streamlined movement of goods across the country. Initiatives such as these do need to be assiduously pursued to further smoothen and simplify the economy's logistics journey.