Opinion

TUESDAY, AUGUST 1, 2017

SPREAD THE FESTIVAL CHEER

Prime minister Narendra Modi

Our festivals are not only for celebrations. Our festivals are also an instrument of societal improvement. Also, it has direct relation to the economic condition of the poor people

Don't dilute RERA provisions

Haryana and UP are bypassing basic tenets of the central law, giving home-buyers the short shrift

IN A BLOW to home buyers, the governments of Uttar Pradesh and Haryana have both opted to dilute the Centre's Real Estate (Regulation and Development) Rules. That clearly violates the spirit of the law that has been brought in to safeguard the interests of homebuyers. Both states—incidentally, ruled by the BJP—have given builders who are yet to complete projects a reprieve. The central law defines "ongoing projects" as those that had not received a completion certificate on the date of notification of the law. The idea of bringing under-completion projects under RERA was to protect home buyers who are yet to get possession of their flats. Also, several projects remain incomplete with the builder not having provided all the amenities as promised.

Both Haryana and Uttar Pradesh have let such builders off the hook by creating exemption provisions. Haryana has kept projects for which applications for completion certificates have been made in keeping with the Haryana Development and Regulation of Urban Areas Act 1975, and projects that have received partial completion certificates or partial/full occupancy certificates out of the purview of the regulator. The second exemption clause means projects where most of the work, save a few blocks, is not complete will not have to register under RERA. That means home buyers will have little recourse if the developer delays giving possession to the remainder of homebuyers or doesn't build common use facilities such as community halls that were part of the approved project plan. Uttar Pradesh, similarly, has created four escape routes, including for projects where the sale deeds of 60% of the flats/apartments/houses have executed and for projects for which completion certificate has been sought. For some perspective on the impact of such dilution, consider the fact that the national capital region that includes Gurgaon & Faridabad (Haryana) and Noida and Ghaziabad (Uttar Pradesh) accounts for nearly a third of the unsold inventory in the entire country. Project delays have added to the costs of homebuyers who took the legal route for a reprieve—Unitech, for instance, had been directed by the Supreme Court to compensate litigating homebuyers for delays, but the company has said it doesn't have the funds to do so.

The two states have also carved other provisions that favour developers. UP has diluted the penalty clauses—it fixes a maximum (and no minimum) of 10% of the estimated project cost for the money to be paid for compounding certain offences, while the central law prescribes a flat 10%. Similarly, Haryana omits the "carpet area" definition, meaning homebuyers will have little clarity on whether the money they are paying to purchase a house also covers areas such as terraces, balconies, verandas, etc. Homebuyers associations in Haryana are contemplating legal action to fight the blatant dilution of the central law. Given how land and realty is a state subject, it is difficult to say if the courts can get the state governments to amend the lax provisions. But since both states are BJP-ruled, it was expected that they would preserve the spirit of a law created by the BJP government at the Centre. Even stern warnings from the Union government have proved to be of little effect.

Can't renew PPAs at will

SEBs hurting renewable power by reneging on contracts

RAPIDLY FALLING PRICES of renewable power, under normal circumstances, should help the government achieve its 2022 target of 175GW on such electricity from both wind and solar sources —by then, hopefully, improvements in storage technology will also make these sources more dependable than they are right now. For now, though, the falling prices are hurting renewable energy producers with a series of state electricity boards now wanting to renegotiate contracts with them to re-price electricity due to falling prices—in other words, there is a very real danger that SEBs will renege on contracts with renewable energy suppliers each time prices fall.

In the case of Andhra Pradesh, *FE* reported, while PPAs had been signed in 2015 at rates between ₹4.76 and ₹4.84 per unit, the Andhra discom now wants these rates to be renegotiated to meet the latest bids of ₹3.46 per unit. Worse, while the central government had announced a series of incentives for renewable power generators, the AP discoms have written to the regulator to ask for these incentives to be passed on to them. In Rajasthan, more than half a dozen renewable power suppliers have filed 19 petitions alleging the SEBs frequently back down their renewable energy demands. And in Karnataka, similarly, the state-owned discom has cancelled 76MW of PPAs and the regulatory commission has said that the state has enough PPAs to meet its renewable purchase obligations.

Since the essence of PPAs is to provide surety to both buyers and sellers, it is not clear how states are being allowed to unilaterally cancel agreements, or what action either the state or the central electricity regulator plans to take. To be sure, renegotiation of PPAs can't be one-sided, so if private projects—Tata, Adani to name recent examples—can ask for re-looking contract terms in response to Indonesia hiking the minimum export prices of coal, SEBs should also be allowed to do the same. The grounds for doing so, however, have to be quite strong, almost akin to force majeure events of the type Tata/Adani alleged had taken place. An SEB being too cash-strapped to pay higher rates is certainly a serious event—though not a force majeure—but if this was the reason for scrapping PPAs, this should apply to all such agreements, not just those with renewable power suppliers. Also, when renegotiation is called for, this has to be done under the supervision/guidance of the regulator, with the energy supplier having the right to approach courts if this is not acceptable. Given the enormity of the problem, and the fact that it is happening in more than one geography, the central government needs to examine the matter—else, its ambitious renewables plan is in danger of falling through.

RatingSKILLING

The govt's plan to rate skill development institutes is a good one, provided this is done by independent bodies

AS PER A 2016 *Hindustan Times* report, two of the top institutes under the Pradhan Mantri Kaushal Yojana-I did not have the requisite infrastructure to train the number of people they claimed they did. Besides, despite the government policy of mandatorily asking for Aadhaar numbers of those registered for training, the National Skill Development Corporation (NSDC) wasn't able to verify Aadhaar numbers of more than 570,000 students. Given the government's experience with the industrial training institutes (ITIs) and the skills development programme, it wasn't really clear how it intended to train more people with little accountability. Now, according to *The Economic Times*, it is now contemplating introducing a rating system to check for quality. Under the new plan, 13,000 ITIs—of which 85% are private run—would get star-ratings. The government will be grading institutions for their teaching, placement and infrastructure, to provide a clearer picture to the lakhs of students who enrol at these institutes each year.

While it is not clear as to who will actually rate the institutes, the skill development ministry did announce setting up of a National Vocational Education and Training system to emulate the success such bodies have had across the developed world. Rather than granting the skill development ministry the power to rate ITIs, a better approach would be to allow an independent body—one that is not attached to the skill development ministry or the NSDC—adopting the National Institute Ranking Framework or the National Assessment and Accreditation Council methodology to dispense the ratings of ITIs, as is done for colleges and universities. With the government planning to train one crore students each year, it can ill afford to have another miscalculation or scam mar the effort.

NO PROOF REQUIRED

AVERAGE CPI INFLATION, SINCE SEPTEMBER 2016, HAS BEEN 3.7 %. HOW LONG IS MPC GOING TO WAIT AND WATCH, BEFORE IT ADMITS THAT IT WAS WRONG IN ITS ASSESSMENT?

RBI/MPC, leave your ego at home

SURJIT S BHALLA

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TIMES HAVE CHANGED, and we have to change accordingly. It wasn't so long ago that the central concern of RBI, and the major macroeconomic concern in India, was inflation. Ask Congress why they lost the election or why Modi won it; high inflation was a major factor. Today, equivalently, high real interest rates are the major impediment to PM Modi's goal of achieving reasonable GDP growth, and the jobs that come with it. The major impediment to creation of jobs in India—the refusal of RBI and the MPC to acknowledge that they have erred, and erred badly, in taking real rates in India to the highest level in 16 years.

For armchair policymakers like myself, it was easier in the old pre-MPC days. There was only one person, the Governor, to blame or give credit to. But, what are we expected to do now? Blame a committee which is confounding everybody with its no-policy policy of keeping real repo rates the highest among major economies in the world (excluding Brazil and Russia)?

I wish to break with the past, and polite anonymity; I intend to discuss policy and names associated with specific policy recommendations. I have known many of you (MPC members) for the last 20-odd years, and so I am certain the analysis, and criticism, will be taken in the right spirit.

The MPC should remember that it is an inflation-targeting institution, i.e., its members are supposed to know more than most mortals about the past, present, and likely future behaviour of inflation. By its own admission, this has not come to pass. One of the more productive paths the MPC could take is to produce a "White Paper" on what went wrong. How many central banks do you know, or have come across, who have made official forecast errors of inflation as large as you have? Don't bother to Google—the answer is "none". In December, you felt March CPI inflation would be 5% with an upside bias. In April 2017, one MPC member (Patra) felt that the MPC should hike rates to prevent future inflation, which came out at 1.5%, a 15-year low, just three months later (June CPI)

Chetan Ghate: In October 2016, you voted to reduce the policy rate from 6.5% to 6.25%. The last three inflation rates you saw were 5%, 6.1% and 5.8%. Yet, you voted for a rate-cut stating that there were acceptable risks to inflation. In June 2017, the last three inflation rates you witnessed were 3%, 3.9% and 3.7%. A week later, the May CPI inflation came in at a 15-year low of 2.2%. Yet, you felt the repo rate could not be cut, because it would be "prudent to wait and watch", a sentiment also echoed by all but one member of the MPC.

Pami Dua: You, like others in the MPC, keep citing the "fact" that US Fed is going to raise interest rates, and therefore Indian rates should stay high. Europe and US policy rates will rise, but no macro-theory, or evidence, tells us that Indian rates cannot simultaneously fall. Monetary policy and inflation targeting is about real rates; what is expected from the MPC is that when inflation falls, policy rates also fall and not what the nominal policy rate in US is doing. And please stop citing the ECRI (what does it stand for?) as the authority on Indian inflation trends. You are the authority—so cite your own research.

Ravindra Dholakia: You have been very right about the great inflation decline. My only criticism is that you came late to the party, but I appreciate the fact that you operate in a feudal Indian set-up like RBI. I know from personal experience, having written two dissent notes for the RBI Committees on Capital Account Convertibility.

Michael Patra: In October 2016, you stated that you, and the MPC, felt that the real policy interest rate in India was no longer 1.75% (between 1.5% and 2%) but rather 50 bps lower at 1.25%. This "realisation" was needed because with the last (August 2016) inflation reading of 5%, the policy rate in October could *not* be reduced with a real rate of 1.75%. By the October MPC logic, and application, the real policy rate in India today is 4.75%, the highest in 15 years, and in need of a rate-cut of 325 bps.

And incidentally, RBI and former Governor Raghuram Rajan were wrong, quite wrong, when he stated that the comparable real policy rate (of other emerging markets) was between 1.5% and 2%. Even at that time (December 2014, in an interview with Prannoy Roy), the median real policy rate in major developing economies was less than 1%, and is even lower today.

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Viral Acharya: You are right in stating that the number one priority for RBI is the solving of the NPA problem. But as an MPC member, *your number one priority is inflation and the setting of appropriate real rates*. The refrain of most apologists for the strange goings-on at the MPC is that deeply indebted corporates will not be helped by interest rate-cuts of 25 bps or even 250 bps. But what mandate of RBI, or MPC, states that deeply indebted corporates are the only concern? Are there no other borrowers in the system? Is the MPC setting rates for only the suit-boot types? Is the MPC the real *suit-boot ki sarkar*, and if so, will you please stand up and say so? The nation wants to know.

Urjit Patel: I don't envy you—being Governor of RBI at such a transformative time is very challenging. Watching a historic inflation decline (greater than any other non-hyper inflation economy since the early 1980s), demonetisation, stressed bank assets, etc. You also have a strong belief that fiscal deficits matter for inflation. Hence, fiscal deficits are high, and RBI cannot cut rates. But why did you vote for a cut in October 2016? And you must know that while fiscal rates (Centre plus state) were the highest in India for the seven years 1999 to 2005, Indian CPI inflation averaged 4.1%.

There maybe an explanation (not much, but here is a try) for why the MPC has been so wrong and for so long. It is because they have been market theorists, not market practitioners. I have always felt that it is important that financial market regulators and researchers spend some time in the "market", before they make policy for other mortals.

The reason is simple—in one of many split seconds, every day, you are proven wrong by the market. There are several important things that the market teaches you, and teachings that are not easily replicated elsewhere. For example, humility, an attribute all too missing among many policymakers and academics, and not just those at RBI or MPC. Humbled by forecasts being wrong, by analysis being right but interpretation being wrong. The beauty of the market is that it is autonomous, and unlike Facebook or Twitter, you pay with your losses for the experience, and knowledge.

Related to humility is possibly the biggest lesson learnt from the market—the ability to look yourself in the mirror, and others in the eye, and say, yes, I was wrong. This is one reason left-oriented intellectuals do not believe in the market—it can hurt them, really hurt them, for their belief in false opinions, and even falser gods. Much better to be in the safety of one's opinions, and being wrong for the wrong reasons.

The beauty is that if I am proven wrong, I have less ego, and certainly zero ego in making financial decisions. Market participants maybe the most egotistical individuals on earth, but they leave their ego at home, where it belongs. Which is why they are not so blinded by the Great Inflation Rate Decline that they refuse to see.

Ask bots if FB's beating Twitter

The social networks need a credible mechanism to verify user numbers; otherwise, there is no telling if bots are driving user growth

LEONID BERSHIDSKY

Bloomberg

JUDGING FROM REPORTED growth in user numbers, one could conclude that Facebook is beating Twitter in the battle of social networks. Problem is, it's hard to know how real all those users are. Twitter reported this week that it had 328 million monthly active users at the end of June, the same as at the end of March. Facebook reported 2.01 billion monthly active users, up from 1.94 billion in March. Another measure that the companies now like to stress—the average number of users per day—also showed Facebook ahead. Twitter said its daily active users were up 12% in the second quarter from a year earlier, without naming an absolute number (*Re/Code* calculates it's some 157 million). Facebook said it was up 17%, to 1.32 billion.

On the face of it, Twitter—the purveyor of news about what's going on in the world right now—appears to have lost out to Facebook's concept of community-building. Forcing people to be concise and letting them see posts in chronological order proved less attractive than Facebook's embrace of all kinds of content and insistence on using a non-transparent algorithm to form the news feed.

This could prompt me—as someone who has quit Facebook and stuck with Twitter—to complain that people don't want control over their information consumption, to mock them for being apathetic in the face of the intrusively irrelevant self-launching videos that have made Facebook such an uncomfortable place for me, to ask how they tolerate the proliferation of ads, mindless clickbait and fakes.

But I'm not going to do that. Why? Because I don't trust either company's numbers. And unlike in the old days of newspapers, when circulations were audited, there's no way for an outsider to verify them. To understand my scepticism, consider a new report from the Atlantic Council's Digital Forensic Research Lab on the Twitter commentary surrounding a *New York Times* column headlined "Trump Is His Own Worst Enemy". It features new bots, pro-Trump bots, anti-Trump bots, a commercial botnet and an online service that allowed users to automate their posts with an "if...then" routine—for example, retweeting posts that contain a certain word or phrase. If any real people were involved in the discussion, they appear to have been heavily out-tweeted.

A lot of the discussion on Twitter is exactly as described in the Digital Forensic Lab's report. It's close to impossible to determine with any accuracy how much traffic comes from fake accounts. One recent study, using a behaviour-based model, estimated that 9-15% of active accounts were bots (a lot more than Twitter has reported). That's still a big range: Based on the company's latest estimate of monthly active users, it adds up to anywhere between 29.5 million and 49.2 million bots.

I assume good faith on Twitter's part; it just can't know what's really going on. Botnet owners are smart. They're constantly perfecting their techniques for imitating human behaviour, staying a step ahead of efforts to detect them. So if, say, Twitter is seeing more growth in average daily users than in end-of month users, it could simply mean that the bots are being used more intensively and efficiently. The trend doesn't necessarily reflect any change in human usage.

As with TV ratings or circulation audit systems, external researchers should be able to check the companies' claims

The same is true of Facebook. For all the academic interest in catching fake activity, for all the company's own efforts to remove fake accounts, comprehensive policing is extremely difficult. "Our results indicate that many fake users are classified as real suggesting clearly that fake accounts are mimicking real user behavior to evade detection mechanisms," Aditi Gupta and Rishabh Kaushal wrote in a recent report. One medium-sized botnet would be enough to account for all the 70,000 monthly active users that the company added in the last quarter.

Nonetheless, advertisers and investors remain obsessed with user data. Facebook's shares jumped and Twitter's tanked after the companies announced their numbers. Billions of dollars in market value were gained and lost.

It's time to establish mechanisms for verifying social networks' user data. As with TV ratings or circulation audit systems, external researchers should be able to check the companies' claims and have a crack at working out the number of fake and duplicate accounts. They may never be perfect, but with a consistent and transparent methodology they could at least be comparable. Although investors and advertisers could be in for some surprises, they'd get a better sense of what's really going on.

LETTERS TO THE EDITOR

Kalam controversy entirely unnecessary

It was fitting that an 'engraved' model Bhagavad Gita made an adjunct to the statute of A.P.J.Abdul Kalam playing the veena at the memorial at Pei Karumbu near Rameswaram. Probably Kalam himself would have regarded the Gita being placed on the podium featuring him as a recognition of his "roots in the Indian tradition" as he understood it. The Gita, the most important part of the Mahabharata, an epic of battle should sit comfortably with the scientist who armed the country-cum-statesman. The row over whether it was the right thing to do was unnecessary. Parties opposed to BJP should not make it their business to portray Abdul Kalam as someone he was not. A man of great learning, he could recite the Quran as well as quote the Hindu scriptures like the Gita and Upanishads. He was well-versed in Tamil literature and his favourite daily reading included the couplets of Thirukural. At the same time, his immense popularity bordering on deification cannot be delinked from his identification with the "nationalist cause" espoused by the upper crust. That he failed as a non-partisan moral force when he did not speak against the targetted mass killings of Muslims cannot be left unsaid. Mixed feelings about his legacy cannot be helped.

— G David Milton, Maruthancode

Nitish's future

Nitish Kumar may well begin to move with speed now, but only till the next Bihar elections. The credit for whatever progress he would deliver till then would be cleverly usurped by the BJP. The constant erosion of his votebank by the BJP, combined with ire of the Yadavs, may prove costly as he has no grass-root political pedigree.

— R Narayanan, Ghaziabad

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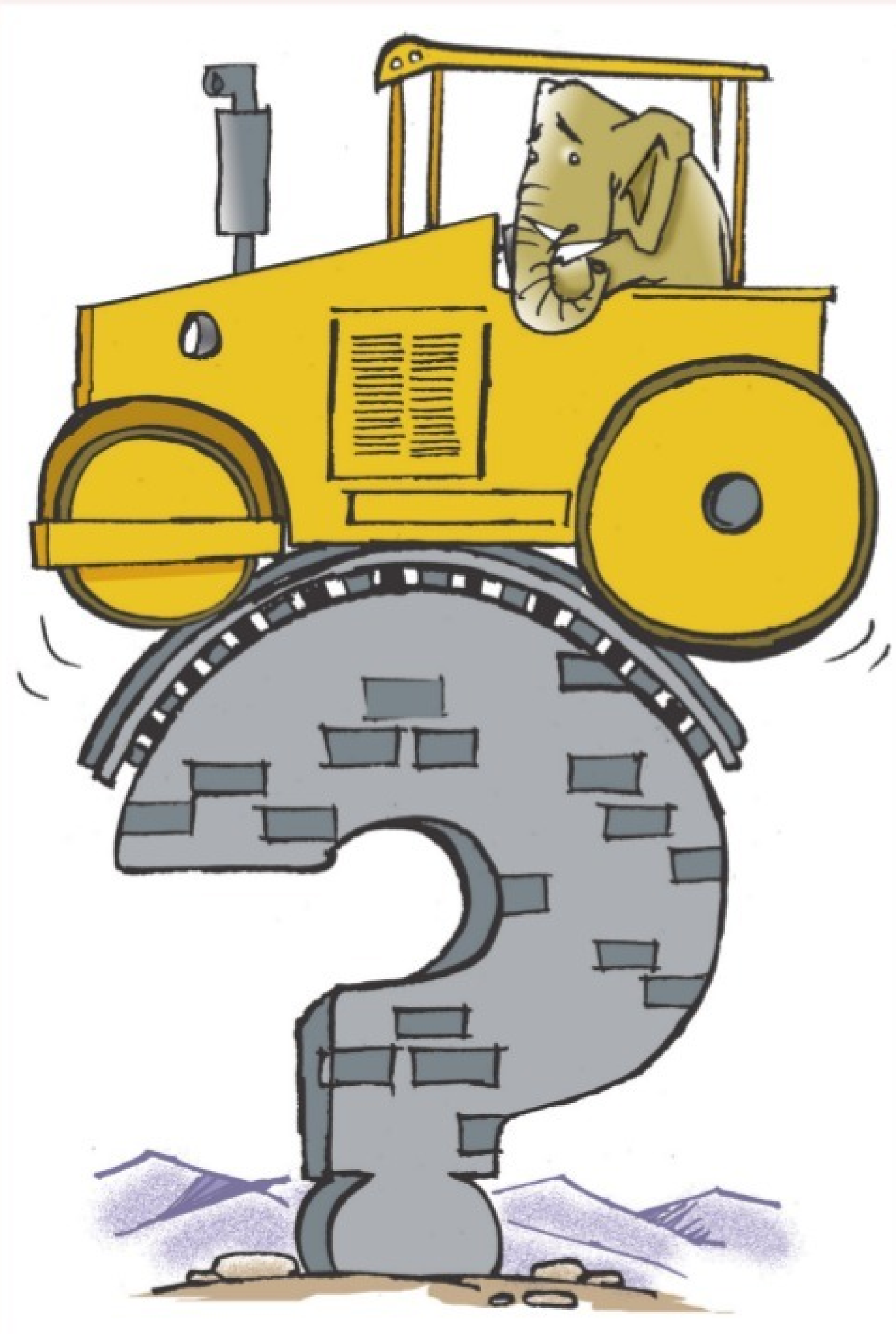

ILLUSTRATION: ROHNIT PHORE

POWERING AHEAD

India's once-shoddy transport infrastructure is getting much better

But it has a long way to go to catch up with China

JUST AFTER 1 pm on July 31, 2012, lights blinked out across northern India. It was the world's biggest-ever blackout, affecting more than 600 million people. It was also a swingeing blow to a transport system that had struggled to cope at the best of times. Hundreds of trains came to a halt in open country and in the tunnels of Delhi's underground railway. Some passengers had to wait for hours in shirt-drenching heat.

Five years on, India's famously creaky transport infrastructure is starting to look strong. The power on which parts of it depend has also become far more reliable. The embarrassing system-wide collapses of 2012, and an earlier one in 2001, are now scarcely conceivable. A rush to expand the electricity supply has been so successful that analysts now warn of a looming excess of generating capacity.

On paper, India has long claimed some of the world's most extensive road and rail networks. That belied reality: roads were twisting, bumpy, crowded and dangerous. Railways were largely single-track, which caused delays, or narrow-gauge, which limited their ability to carry large loads. By car or train it was rare to sustain speeds of more than 50 kph (30 mph). Puzzled tourists wondered why distances that looked small on a map took forever to traverse. The rail network had barely expanded since the days of the British Raj, despite having to handle some 8 billion passengers a year. India's remoter corners were tied to the centre by the thinnest of infrastructure threads. Snows blocked passage to Kashmir for days at a time in winter; floods regularly cut off much of the north-east.

That is changing, too. In recent months Narendra Modi, the prime minister, has inaugurated India's longest road tunnel and longest bridge. The tunnel slashes driving time between Jammu and Srinagar, the winter and summer capitals of the state of Jammu & Kashmir, by two hours. It also makes the route passable all year round. The new bridge spans the vast and moody Brahmaputra river, a once-formidable barrier running through the north-eastern state of Assam. Another one nearing completion will, for the first time, link Kashmir by rail to the rest of India. Rising a dizzying 359 metres (1,178 feet) over a gorge, it is the world's tallest railway bridge.

China does it quicker

With less drama, transport networks are being overhauled. The central government has doubled budgets for both road- and rail-building since 2012, to a combined total of close to \$30 billion a year at today's exchange rate. Progress on building expressways has been unimpressive. Unlike in China, where the government has been able to build big roads at astonishing speed thanks, not least, to its ability to kick farmers off their land at will, in India a more litigious system makes it harder to appropriate land. India's government is also more sensitive than China's to farmers' political opinions (in India they can vote in proper elections). Building roads from which their animals and tractors are excluded is unpopular in the Indian countryside. But local governments are paving and widening rural roads at a rate of 117 km a day.

On the railways, better signalling and tracks have pushed up the speed of faster trains to a respectable 140 kph. Work is about to start on India's first dedicated high-speed rail link, a 500-km track between the western city of Ahmedabad and the commercial capital, Mumbai. When the first line of the Delhi Metro opened 15 years ago, many passengers were surprised by its fast, clean and efficient service. India's capital now has six such lines, some running below ground. Seven cities have such rapid-transit systems. Eight more are building them.

More striking still is the growth in air traffic. Domestic passenger numbers have doubled since 2010, to nearly 100 million a year. Last year alone the number surged by 23%. Indian airlines are snapping up new aircraft, with some 450 in operation and more than 1,000 on order. Modi's government has brought cheer to fast-growing private airlines. It plans to privatise much or all of the loss-making national carrier, Air India, and has also pushed through an ambitious scheme to encourage the use of smaller airports. Through a mix of subsidies and guarantees to airlines, plus ticket-price caps for passengers, the scheme aims to put 31 unused airports into passenger service and boost connectivity to 12 more that are reckoned to be underserved.

There will be plenty of power to operate them. Installed generating capacity has more than doubled since 2007. The capacity of power projects now being built should double it again from the present level, assuming they are all completed. Improvements to transmission are no less impressive. "We have a more advanced, more flexible grid than Europe's," enthuses Vinayak Chatterjee, an infrastructure consultant. He says the country can now more easily transmit power over long distances, such as from the north-east (which has a surplus) to the often under-supplied south.

> **Having spent 30 yrs beefing up its own infrastructure, China has set standards that India will still take decades more to match**

The boost to India's infrastructure has not been problem-free. An exuberant rush into public-private partnerships for big projects a decade ago left many private firms taking on bigger financial risks than they could manage. Many ventures stalled. Infrastructure-related deals are reckoned to account for around 10% of the nearly \$200 billion in non-performing loans that currently bog down India's financial system.

The government's own projects have not all run smoothly, either. A grim report by the state's main auditing agency earlier this year painted a picture of incompetence and corruption in the Indian army's Border Roads Organisation, which is responsible for building strategic roads along India's mountainous border with China (*goo.gl/5tazYj*). Out of 61 roads that the agency was supposed to have built between 1999 and 2012, only 36% had been completed by 2016, the report revealed. Some of the unfinished ones came to a dead end in impassable gorges, or were abandoned because different stretches turned out to be impossible to join.

That is galling for India, which often rates its progress by comparing itself with China. Having spent three decades beefing up its own infrastructure before India began to get in on the act, the northern giant has set standards that India will still take decades more to match.

THE ECONOMIST

PM AWAS YOJANA

Housing success

RK ARORA

Chairman, Supertech Limited

'Housing for All' mission will be boosted by benefits in the affordable housing segment

HOUSING SHORTAGE has been a perennial problem for Indian policy-makers. Estimates place the nationwide shortfall in urban areas at 18 million units. Merely building the requisite number of units will not solve the housing problem. In fact, most people cannot afford homes at the rates currently prevailing in urban zones. Significantly, it is the economically-weaker sections that comprise as much as 90% of the housing shortage victims.

These facts have been clearly taken into account by the government when the Prime Minister announced the Pradhan Mantri Awas Yojana (PMAY) in June 2015. Under its mission 'Housing for All by 2022', PMAY will build 20 million houses for the urban poor by 2022. During this period, central assistance will be provided via urban local bodies as well as other implementing agencies. All statutory towns (and cities) as per Census 2011, and those notified thereafter, will be eligible under this mission.

This will be done mainly through credit-linked subsidy and affordable housing schemes launched in partnership with other developers. The latter initiative seeks to encourage private developers to build affordable housing projects. Since the scheme is meant to provide housing for all, people who own a home (or have family members who own one) may seem technically ineligible under PMAY. Those having availed of any central assistance for housing schemes are also not allowed to apply.

Nonetheless, the guidelines clarify that male or female earning adults (irrespective of marital status) can be considered as a separate household—provided he/she owns no 'pucca' home in his/her name anywhere in India.

Similarly, for any married couple living in the parents' own home or separately on rent, eligibility applies since they constitute a separate household. But even if both are earning, the couple would only be eligible for one home, either individually or jointly, under PMAY. That's not all. The benefits are available for buying a new house from any developer or for one repurchased from the secondary market. A person can also avail a loan to construct a house.

> **Given all the incentives, prices in the affordable housing segment are likely to stabilise or even dip marginally. All these factors can incentivise developers to consider projects**

All this may make it seem that a person who already owns a home cannot avail of any PMAY benefit. Again, not true. PMAY provides benefits even for enhancement or extensions to an existing 'pucca' house. Therefore, a person seeking to build a room, kitchen, balcony, etc. can still apply for a loan to fulfil this purpose. This rule will prevail even if the home is a 'pucca' one.

The other significant point to note is this scheme only considers the carpet area of a house, not the built-up or super-built-up area. Accordingly, only the area that lies within the four walls needs to be taken into account.

To promote the Affordable Housing mission more vigorously, this segment was given infrastructure status in Union Budget 2017. Additionally, the norms were relaxed to make them more attractive for developers. Earlier, developers were required to complete their Affordable Housing projects within three years. But the completion tenure has now been relaxed to five years.

Given all these incentives, prices in the Affordable Housing segment are likely to stabilise or even dip marginally. Moreover, during the past few months, banks and other lenders have announced lower interest rates on home loans.

All these factors can incentivise developers to consider projects in the Affordable Housing segment due to the rising scope for such developments.

Besides developers, bankers and housing finance companies will also be happy with the government incentives. Thanks to the lower risks, institutional funds will become easily available for developers at more competitive rates. Earlier, developers were forced to procure finance at much higher rates. These funds will also be disbursed much faster. All of this would ensure greater liquidity in the Affordable Housing segment.

Considering these advantages, all stakeholders should take advantage of these incentives and ensure that the government's 'Housing for All by 2022' mission becomes a resounding success.

Evolution of Internet of Things (IoT)

ANUPAM KULKARNI

Co-Founder & Director of iAuro

EARLIER WHAT WAS once called 'Machine-to-Machine' was merely an idea, next thing we know, Internet Of Things (IoT) took the world by storm as we entered the 20th century. IoT holds a meaning so vast for it to be termed a marketing gimmick than a technology. The methodology of this process evolves from receiving simple code instructions to more complex real-time computations.

There is a misconception that IoT is an app to switch things on or juts a system of computer devices. Contrary to these misconceptions, IoT is a digital realm of every device including inanimate objects such as a toaster that is connected on a global computer network, ie, the internet. It is an environment which shall vanguard a world-vision of interconnected objects which can communicate and conduct automated tasks over the internet, and it has evolved in this manner over the last two decades.

1990: Considered the first event of an IoT device where John Romkey could turn on or off a toaster using the internet via TCP/IP networking.

1997: Social Media was absent, communication was only by telephone or email.

2000: The advent of search started, and it marked the baby steps for social media

2004: Marketing on social media was so easy that this brought the attention of investors to think and store data.

2009: Accelerated Growth of Cloud transaction laid the foundation of Big Data.

2017: By now brands and marketers are engaging with IoT, AI and Big Data to track the consumer and base their business decisions accordingly.

As we have started to understand the power data holds, our technological advancements and solutions have started leading to artificial intelligence backed by the mining and harnessing of this data. The power of data has been fully understood today, and solutions are being built keeping this in mind. While there are challenges, that as an industry, we need to overcome such as standarisation of hardware, installation of tracking data at the exact location and security format/protocol, the understanding of this power of data has unlocked a new age in building technological solutions. And finally instead of ignoring data points, we have all woken up to the need to harness, protect and value data more and more with IOT leading the charge. Maybe, it was never the technology that had the power, but the data, without which, the technology could be considered useless. This is an age where we have finally understood: the power of data.

Electrified response

With installed capacity expected to surge to nearly 1,100 GW in 2040, same as that of Europe's, the road ahead seems brighter and greener

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THREE YEARS AGO, the power ministry faced a sector that was grappling with multiple challenges: an acute shortage of domestic coal supplies, a perceived lack of transparency of their allocation and the deteriorating health of the State Electricity Distribution Companies (DISCOMs). Not addressing these issues on priority could have posed a big question-mark on the future viability of the existing and new investments in the sector. The different initiatives over the past three years have led to a significant transformation.

The accelerated pace of generation capacity addition over the past few years has led to the electricity supply potential being greater than the economic demand, a scenario that has not been witnessed before.

Enhanced policy focus on climate change, energy security concerns, etc, have also led to a changing energy mix due to which the penetration of renewable electricity has increased. At 57GW of installed capacity, share of renewable energy is at 18% and is expected to increase significantly in the coming years, with solar as the biggest driver. New capacity addition in the solar space is expected to touch 8.8 gigawatt (GW) in 2017, which will make India the third biggest solar market in the world. The total installed capacity in the space has more than quadrupled in the last three years from around 2.6GW to almost 12.3 GW currently. Private sector is a big participant in this transformation and there has been an impressive reduction in the bid tariffs as a result of careful structuring and transparency, for which the government deserves credit.

In addition, with over 1,800 circuit kilometers of transmission lines commissioned during 2017-18 (as of April 2017), the sector witnessed increase by nearly 36% in transmission capacity, from 5,30,546 MVA in March 2014 to 7,47,810 MVA in May 2017. In terms of rural electrification, 13,000 villages electrified out of a total of 18,452, which accounts for about 74%. The current government's performance, thus, is a praiseworthy achievement in this regard.

Simultaneously, domestic coal supplies have also improved resulting in a limited need for imported coal benefitting India's current account deficit. This is a noteworthy achievement as no plant has reported generation losses due to non-availability of coal in 2016. As per the International Energy Agency (IEA), coal will continue to be mainstay for power generation in India till 2040. It is estimated that India will be one of the main drivers for global coal demand. Earlier this year, global rating agency Moody's changed the rating for India's power sector from negative to stable. The primary reason for this was improved coal production which was estimated to ease fuel supply constraints. Coal availability for the power sector under e-auction has also improved significantly; the relative price gap between linkage and e-auction coal has narrowed down and has become more affordable. The e-auction process started by the government has streamlined government contracts and following a digitised mechanism has created an accountability trail.

The most pressing challenge in the sector continues to be the financial stress in distribution companies, which creates a stress in the system that goes all the way up the value chain. The UDAY scheme in this aspect has been progressing well. The weak health of discoms and lower economic activity has resulted in a steep fall in the plant utilisation levels from the mid 70% levels in year 2011-12 to almost 60% levels in the year 2016-17.

The PLF of the private sector—which took a lead role in capacity addition—is dangerously close to the techno-economic viability threshold. Additionally, the stranded capacities for thermal assets have reached 46,000 MW, which is alarming and a threat to future investments. However, the recent steps taken by the government in this direction seem promising. Moreover, industry reports suggest that UDAY scheme has already managed to yield a savings of nearly ₹12,000 crore with a sharp reduction noted in revenue losses up to 60% in some cases. As per Rural Electrification Corp., bonds worth ₹2.3 trillion have been issued to refinance 85% of the total distribution utility debt to be restructured (as on September 30, 2015) leading to less rate of interest for discoms.

The power ministry has set a target of 1,229.4 BU to be generated in FY18. It is important to note that energy shortages have reduced from 2,428 million units (4.2%) in 2014 to 7,459 MU in 2017 (0.7%), while peak energy shortage have reduced from 4.5% to 1.6% in 2017. With the installed capacity expected to surge to nearly 1,100 GW in 2040, which is the same as that of Europe's present capacity, the roadway ahead seems brighter and greener for India.