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Opinion

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NUANCED NATIONALISM
Vice-president Hamid Ansari

Liberal nationalism is polycentric by definition. On the other hand, the version of nationalism that places cultural commitments at its core is usually perceived as the most conservative and illiberal

Careful of frequent changes in GST rates

Hiking the cess on bigger cars corrects an anomaly but eventual goal has to be reducing rates, not hiking them

GIVEN THE WAY the GST rates, including the cesses on various goods and services, were calculated, the effective duty rate on bigger cars and SUVs fell from 52-55% in the excise-cum-VAT days to 43% under GST while that on hybrid vehicles above 4 metres in length rose from around 30% to 43%—to that extent, if the government policy is to encourage the use of hybrid vehicles, this needed to be fixed. This has now been addressed with the GST Council agreeing to hike the cesses on bigger cars/SUVs to keep the GST rates on them at the 52-55% levels, thus restoring the edge hybrid vehicles had in terms of tax rates. The actual duty change will, though, require an amendment in the law on cesses, and that may or may not happen in this session of Parliament. When a similar anomaly had seen duty rates on cigarettes come down dramatically post-GST, the GST Council was quick to hike rates and, in the bargain, provided around ₹5,000 crore extra in the cess account to compensate states in case there is a fall in their revenues after the implementation of GST. Given GST is a brand-new tax, such anomalies are bound to creep in, and so it is important that the GST Council be quick and flexible about the necessary changes in tax rates. The fact that all decisions of the Council have been unanimous and not by majority also means that both the Centre and all the states are on the same page when it comes to what needs to be done on GST.

This, however, is a double-edged sword and needs to be used carefully. If the GST Council is going to be changing rates as frequently as it has, this will encourage those taxed to constantly lobby for changes, whereas a large part of GST's USP is the stability in rates. More important, it has to be kept in mind the eventual goal of GST is to have a smaller number of rates—it is in this spirit that finance minister Arun Jaitley told Parliament the other day that there was, over a period of time, scope to merge the 12% and 18% GST rates. Since any such merger of tax rates means one set of goods and services will see their rates go up, and another will see them going down, the mechanical fitment exercise being used right now—to ensure that the effective tax rate does not go up/down by too much—will not allow this to happen. In which case, the GST Council would do well to relook this model. The bad news, at least for now, is that the GST Council is unlikely to appreciate this—indeed, the reason why it is so keen on pushing for the anti-profiteering authority is that it does not trust producers to pass on duty benefits to consumers. GST is a fundamentally different way of taxing goods and services, and its strength lies in it being simple with as few rates as possible—reducing it to a system in which rich-people's-goods are taxed at a higher rate than poor-people's-goods is a bad idea.

Missing the real FCI issue

CAG doesn't see ₹40,000cr pa saving by moving to DBT

THE CAG HAS done well to point to the extra cost incurred by the Food Corporation of India (FCI) due to the fact that the finance ministry consistently under-pays FCI for the costs it incurs while procuring and distributing foodgrains across the country. In 2011-16, CAG says, the finance ministry released, on average, just around two-thirds of the funds FCI needed—though CAG doesn't say, this probably helped the finance ministry show lower subsidy numbers each year. Due to this shortfall in funds, FCI has had no option but to borrow money commercially and this, according to CAG, has led to an extra interest burden of ₹35,700 crore in 2011-16 or around ₹7,000 crore each year—as a percentage of the total food subsidy each year, that's a pretty significant number, around 5%.

Significant as the number is, it is probably the least of FCI's cost, both in financial and non-financial terms. Right now, the government spends around ₹1.4-1.5 lakh crore each year on FCI operations that include procuring grain to ensure farmers get a good deal and to help prevent price fluctuations, as well as selling it at vastly subsidised prices in ration shops. As it turns out, FCI is not doing a good job on either front. For one, its procurement is limited to wheat and rice in a handful of states, as a result of which just 4-5% of the country's farmers sell their produce to FCI. In Punjab, to make things worse, FCI procurement has encouraged growing of too much of wheat/rice and, as a result, a dramatic fall in the state's water-table; at an all-India level, the MSP-system which benefits mostly wheat and rice has discouraged growing of other crops whose prices then tend to be a lot more volatile—this, in itself, is a good reason to scrap the FCI-based system. As for the need for large FCI food stocks to keep consumer prices stable, the Shanta Kumar committee had pointed out over two years ago that a stripped-down buffer stock of 10 million tonnes and government buying options/futures would be a better solution.

The financial implications of FCI's inefficiency are staggering. Right now, under the Food Security Act (FSA), the government guarantees 5 kg of wheat/rice per month to 81 crore people. Given the difference in FCI's economic costs and the issue price of ₹2/3 per kg fixed in FSA, scrapping ration shops would mean people would spend ₹20-22 per kg extra if they had to buy the grain in the open market. If the government moved to Direct Benefit Transfer (DBT), it would have to pay consumers ₹107,000 crore to ensure they didn't lose out vs the ₹145,000 crore it spends right now under the FCI-system. It is a pity that despite the evidence against the FCI system being so clear, the government refuses to act on this—the CAG, being more concerned about audit principles, not surprisingly, has missed this altogether.

GoldenRUN

Usain Bolt, the fastest man in history, signed off with an act of exemplary sportsmanship

JUSTIN GATLIN'S WIN in 100-metre sprint on Saturday at the IAAF World Championship in London should have been a proud moment for the runner. But then it was Usain Bolt's, the much loved "fastest human in history", last dash in competitive athletics, and a crowd that would have perhaps forgiven Gatlin his doping past—or at least, would have been less harsh—booed him as he took to the podium for the gold medal. Cheers rang loud for Bolt's bronze. This, unfair though it may seem to many, is a testament of Bolt's legacy more than Gatlin's.

Bolt came into the championship battling a bad back and having ran 100 metres in under 10 seconds only once this year. And yet, the crowd continued to fervently believe that he would bow out with a win. A world that has been witness to Bolt's peak would refuse to expect anything else, particularly the opposite. So what if his late-charge, his signature winning move, had been looking rusty for some time now? Wasn't Bolt the runner who ran to glory in the 2012 London Olympics, defending his gold from the 2008 Beijing Olympics and bettering his own Olympic record, after having predicted (some would say boasted) that he would win? Didn't he set the dizzying 9.58 seconds world record at the Championships in Berlin in 2009? His 'golden run' peaked at 2016 Olympics, where he bested athletes with a feat that has since become popular as the "triple double"—in Rio, Bolt became the first and only person so far to have won the gold in both 100-m and 200-m in three consecutive Olympics. But Bolt signed off with something much greater than a win—his defending Gatlin against the boos from a crowd that was clearly rooting for him will remain an act of exemplary sportsmanship.

FOOD FOR THOUGHT

POLICIES BASED ON DEMONSTRATION EFFECT COULD HAVE SUBOPTIMAL OUTCOMES. CASH TRANSFERS MAY BE WORKING IN HARYANA, BUT THEY MAY NOT WORK IN ODISHA

Demand-side insights on DBT vs PDS

MAMATA PRADHAN, DEVESH ROY, AVINASH KISHORE & VINAY SONKAR

Pradhan is doctoral scholar, University of East Anglia, UK. The findings are part of her PhD thesis. Roy and Kishore are research fellows, and Sonkar is research analyst, International Food Policy Research Institute

THE DEBATE IN India regarding the delivery mechanism for the Public Distribution System (PDS) has been polarised along the lines of cash versus kind transfer, inclusion criteria over exclusion criteria for beneficiary selection and the composition of product portfolio. This debate has been revitalised with the news that government is contemplating scrapping PDS, and replacing it with direct benefit transfer (DBT) for food because of encouraging results from pilots in Haryana and Puducherry. Though the PDS continues to be the fulcrum of food subsidisation, states like Bihar, Andhra Pradesh, Madhya Pradesh and Delhi, are conducting pilots for alternative mechanisms. Karnataka, recently made ration-card-holders eligible to buy rations at any PDS shop within the state i.e. not only their preassigned shops.

Amid all these, one facet that deserves attention is: What do the beneficiaries of this system themselves want? Do they want a DBT, a food stamp, or the traditional PDS with some rough edges smoothed? Is the transferability of PDS across shops the preferred option or a purchasing power preserving DBT would make them happier? These questions relate to the rubric of demand assessment. Common sense might suggest that for maximum effectiveness, programmes like the PDS have an in-built system for such assessment. Yet, hardly any government programme ever carries out a demand assessment, and the PDS is no exception.

The need for demand assessment

Effectiveness of programmes like PDS, are usually assessed from the supply-side with indicators such as cost of delivery, coverage, leakages and prices for the intended beneficiaries. The question remains about the demand

assessment, the importance of which has amplified after the enactment of National Food Security Act (NFSA) where PDS is pivotal as the last node of delivery.

In our research, we break ranks with much of the literature to assess what people really want from the PDS. We conducted surveys in three states/regions of Bihar, Odisha and Eastern Uttar Pradesh. Our motivation comes from the fact that for reasons, including historical continuity, PDS has been designed without accounting for changing needs and preferences as a result of several factors—modifying dietary patterns, food cultures, social structure, social norms, improving access to information, and changing aspirations of the people. The results clearly indicate heterogeneity in terms of socio-economic environments, political structures including power relations that determine the nature and type of engagement with the PDS, tastes and preferences and the delivery systems and efficacy of the PDS. After NFSA, substantive changes occurred in eligibility, entitlement and delivery mechanisms that also form a basis for heterogeneity. Heterogeneity shows up in varied preferences relating to the PDS (e.g. rice over wheat or variety of rice preferred). Some problems in PDS may be due to a mismatch between what is desired and what the programme provides for, for example leakages.

Delivery mechanism: What do the beneficiaries want?

On choice between the current PDS and DBT, responses seem quite diverse. In Odisha (sample focusing on tribal districts), overwhelming 93% are not in favour of DBT replacing PDS, and around 92% do not see it as the way to go in near future as well. With such a stark aversion to DBT, it is pertinent to ask the reasons behind such choices. Both women and men express fear that cash is prone to misuse by them or family. Interestingly, tribal women are wary of DBT for their own habits as well, expressing fear that they would end up diverting cash to buy local toddy and tobacco. More from a programme perspective, a significant percentage of women find dealing with banks complex with many formalities. Here, it becomes important to delineate the issue with the programme itself and the implementation hitches.

Coming to Bihar, another poor state, the fruits of heterogeneity and need for demand assessment come to the fore. Despite the documented claims of PDS improvement in Bihar, there is significant buy in for non-PDS delivery systems, cash and food coupon. With deeply entrenched

caste system and local power dynamics, cash or universal food coupon emerge as tools to minimise the interface with the PDS dealer, often a source of harassment/abuse especially for women. In Eastern UP, the responses are divided, with around 51% in favour of DBT. Some reasons cited for preferring DBT were its comparative ease, flexibility and the prospect of better quality food compared to PDS.

Since a significant 48% do not favour cash, it is worthwhile to explore their reasons. The perception is conditioned primarily by their negative experience with other schemes like old-age pension. This apart, households not preferring cash seem to believe that PDS insures against inflation in a way that DBT may not, and that cash transfer may encourage even greater corruption at the local level. As a common finding two factors bear on the needs and preferences: experiences with the current PDS and the familiarity or experience with the alternative.

Possible policy implications

So, what are the main takeaways? There is a need for needs assessment driven by significant heterogeneity. One may argue that there is a limit to needs assessment in terms of its granularity. There however are broad questions like preferred mode of transfer in PDS. An important implication is to refrain from making policies based on demonstration effect (nationally or internationally) for that could result in suboptimal outcomes. For example, if cash transfer is working in Haryana, there is no guarantee that it will work in Odisha.

In Odisha, an overwhelming 93% are not in favour of DBT replacing PDS, and around 92% do not see it as the way to go in the near future as well. Both women and men express fear that cash is prone to misuse by them or family

India's power paradox

Improvements in efficiency and infrastructure are bringing electricity to the masses. That's not so great for energy companies

NATHANIEL BULLARD

Bloomberg



IN GLOBAL ENERGY markets, India takes third place in a few key metrics. The country has the world's third-largest electricity generation system, after China and the United States. It is the world's third-largest power generator, and it is also the world's third-largest carbon dioxide emitter, again behind China and the US in both measures. In one category, though, it comes in first: India has the world's largest population without reliable access to electricity, about 250 million of its 1.3 billion people. Increased access to electricity is an infrastructure matter, but it is also a technological one—and technology is both enabling electrification and blunting its growth at the same time.

First, on the positive side: Incandescent light bulbs are being replaced by light-emitting diode (LED) bulbs, which consume much less power. India has about 770 million of the older, inefficient bulbs, and as of Thursday had installed 253 million LEDs, according to the government's excellent National Ujala Dashboard, which tracks deployment of bulbs, tubelights and efficient fans.

The result of all of those newer bulbs is 6.5 gigawatts of "avoided peak demand"—which means that the power system no longer needs to supply that much power for lighting. Put another way, 253 million LEDs means that India's peak electricity demand is already 4% lower than it would be without LED bulbs. Tripling the number of LEDs and eliminating every inefficient bulb would increase the avoided peak demand to 20 gigawatts, or 12%.

Greater efficiency means lower demand and, in a country with chronic power deficits, a welcome move toward easing supply constraints. India's peak power deficit since fiscal-year 2009-10 is shown in the accompanying graph. That welcome approach to zero deficit is also due to more power generation and better transmission and distribution. Demand grew by nearly 9% in 2014, but Bloomberg New Energy Finance expects that number to drop by two-thirds by 2021 (and rise again after that).

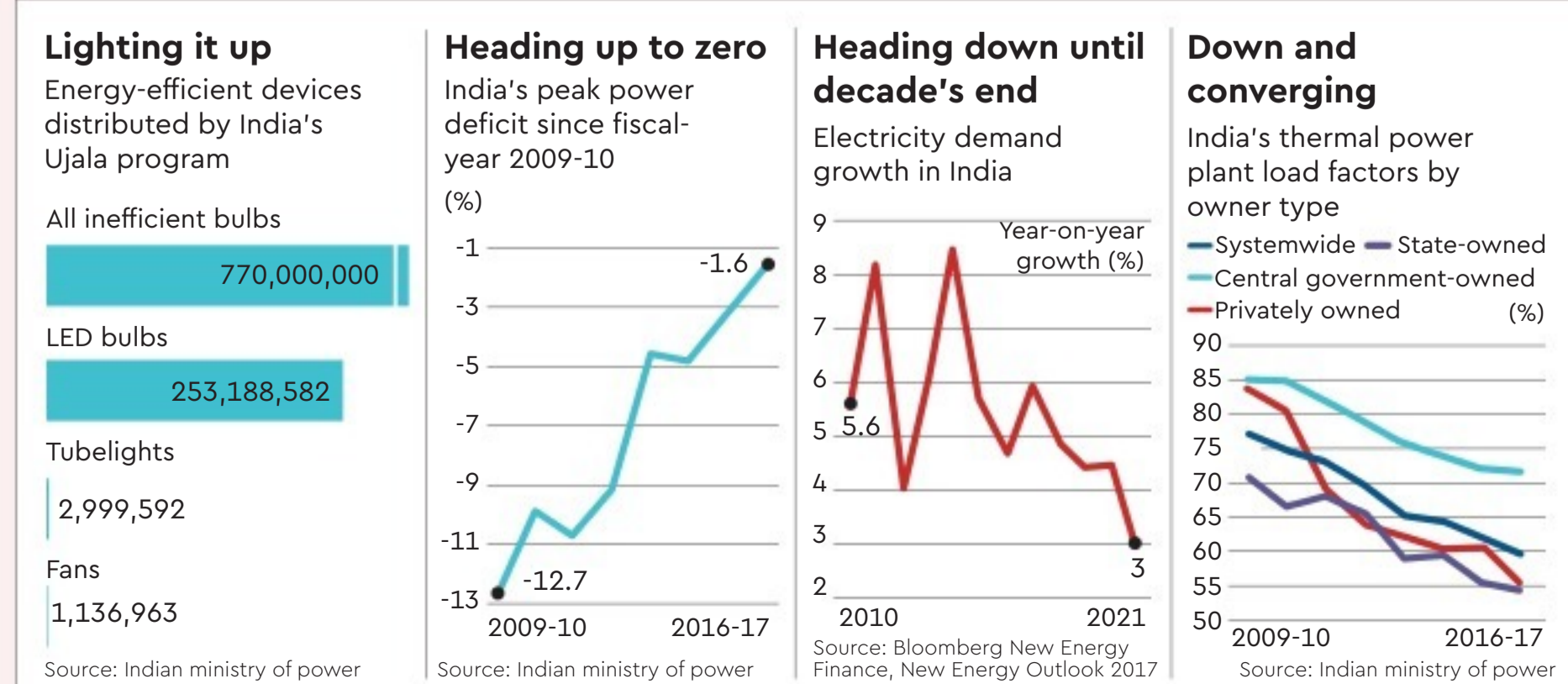
Greater efficiency in new lighting, and greater delivery of generated power, are both great things for India. They're less

great for power generators, whose plant load factors (or operational hours out of their potential total per year) have been falling steadily even as power deficits have fallen.

Plants owned by the central government have the highest plant load factors, but those owned by state governments have plant load factors below 55%, and privately owned plants are scarcely better off.

India's technology and infrastructure interaction is complex, but it's also a useful lesson in thinking about long-term growth. India's demand for electricity is still growing, as is the physical plant to support it. That physical system is also simultaneously improving in efficiency. Slower-than-expected growth can be cold comfort; for those who planned and built for higher growth, slower-than-expected growth looks like no growth at all, or even negative growth.

In his book, *The Big Short*, Michael Lewis says that "markets are a collection of arguments." In India's power market, technology and efficiency are on the winning side of that argument.



LETTERS TO THE EDITOR

Learning from the myths

Apropos of the article "Breaking the myth" (*FE Sunday*, July 30), myths have lived a glorious life through many writers since, and the majestic grandeur of mythology had always enlivened human minds for ages. The book, *The One who Swam with the Fishes*, on the all-important character in the epic *Mahabharata*, Satyawati, the fisher-woman who went on to become the queen of Hastinapur, is not the first in the genre to rehearse the characters of the epics; nor is it going to be the last. Centuries ago, Goswami Tulsidas in Hindi, Kambhar in Tamil and Thunchaththu Ezhuthachan in Malayalam, to name a few, had created a divine halo around Ramachandra, turning Valmiki's timeless story, *Ramayana* into a devotional melody. In 1948, Kuttikrishna Marar, a noted Malayalam litterateur wrote a treatise titled *Bharatha Paryadanam (Journey through Bharata)*, 'a critical exposition of the characters and events in the epic,' *Mahabharata*. Over the years, the characters in the epics reappeared strongly in the works of many famous writers in the vernacular, as also in English. In the introduction to his book, *STRI: Feminine power in the Mahabharata*, Kevin McGrath summed up: 'this book is a study of femininity as it appears in epic *Mahabharata*, focusing particularly on the roles of wife, daughter-in-law, and mother; on how these women speak and on the kinship groups which surround them.' A noted critic and novelist in Malayalam, PK Balakrishnan authored a brilliant novel, *Ini Njan Urangatte (And now, Let me Sleep)* with the inconsolable Draupadi as the central character. However, epics being *kshatriya* poetry or song, discussions on femininity had always centered on noblewomen in palaces. There could still be many more such works in the offing, for humanity to relish in continuum.

— Haridasan Rajan, Kozhikode

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When will the tech bubble burst?

Every decade experiences an unrealistic stock market mania, and it feels like we might be deep into one now

AT THE HEIGHT of a market mania in 1967, the author George Goodman captured the mood perfectly, comparing it to a surreal party that ends only when “black horsemen” burst through the doors and cut down all the revellers who remain. “Those who leave early are saved, but the ball is so splendid no one wants to leave while there is still time. So everybody keeps asking—what time is it? But none of the clocks have hands.”

Every decade since, the global markets have relived this party. In the late 1960s, the mania was for the “nifty 50” American companies like Disney and McDonald’s, which had been the “go-go” stocks of that decade. In the late 1970s, it was for natural resources, from gold to oil. In the late 1980s, it was stocks in Japan, and in the late

1990s, it was the dot-com boom. Last decade, investors flocked to mortgage-backed securities and big emerging markets from Brazil to Russia. In every case, many partygoers were still in the market when the crash came.

Today, tech mania is resurgent. Investors are again glancing at a clock with no hands—and dismissing the risk. The profitless start-ups that were wiped out in the dot-com crash have consolidated into an oligopoly composed of leading survivors such as Google and Apple. These are giants with real earnings, yet signs of an irrational euphoria are growing.

One is pitching budding investments with very different outlooks into a single package. Last decade, they bundled Brazil, Russia, India and China to sell as the BRICs. More recently, they packaged Face-

book, Amazon, Netflix and Google as FANG, then, as names and prospects shifted, subbed in Alphabet, Apple and Microsoft to make Faama. Others are hyping the hottest tech companies in China as BAT, for Baidu, Alibaba and Tencent. What-ever the mix, acronym mania is usually a sign of bubbly thinking.

Seven of the world’s 10 most valuable companies are in the tech sector, matching the late 1999 peak. As the American stock market keeps marching to new highs—the Dow hit 22,000 this week—the gains are increasingly concentrated in the big tech stocks. The bulls say it is inevitable that Apple will become the first trillion-dollar company.

No matter how surreal the endgame, booms tend to begin with real innovation. In the past, manias have been triggered by excitement about canals, the telegraph and the automobile. But not since the advent of railroads incited market booms in the 1830s and 1840s has the world seen back-to-back booms like the dot-com bubble of the 1990s and the one we are in now.

The dot-com era saw the rise of big companies that were building the nuts and bolts of the internet—including Dell, Microsoft, Cisco and Intel—and of start-ups that promised to tap its revolutionary potential. The current boom lacks a popular name because the innovations—from the internet of things to artificial intelligence and machine learning—are sprawling and hard to label. If there is a single thread, it is the expanding capacity to harness data, which the Alibaba founder, Jack Ma, calls the “electricity of the 21st century.”

Market excitement about authentic technology innovations enters the manic phase when stock prices rise faster than justified by underlying economic growth. Since the crisis of 2008, the United States economy has been recovering at the rate of around 2%, roughly half the rate seen for much of the past century. The areas of growth are limited in this environment. Oil’s not very euphoric, with prices depressed, while regulators are forcing banks to keep the music down. In the most direct

We are now eight years into this bull market, making it the second longest in history, behind the run-up of the late 1990s. The clocks have no hands, and black horsemen may appear at any time

echo of 1999, technology is once again seen as the best party in town.

It is true that prices today are not quite as widely overvalued as in 1999. Large technology stocks are up 350% this decade, the low end of the range for the hot stocks from earlier booms, which saw gains of 300-1,900%. Only a few select technology companies—mainly the internet giants—are trading close to the valuations of the dot-com era, when the average price-to-earnings ratio for tech companies hit 50. The average ratio for that sector today is 18.

However, the scale of today’s tech boom is not readily visible because much of the investment action has moved into the hands of big private players. In 1999, nearly 550 start-ups went public, and after many ended in disaster, the government tightened regulation of public companies. In part to avoid that red tape, this year only 11 tech companies have gone public. Many are raising money instead from venture capitalists or private equity funds. Venture capitalists have poured more than \$60 billion into the technology sector every year for the past three years—the highest flows since the peak in 2000—and private equity investors say there has never been a better time to raise money.

These new private funding channels are creating “unicorns,” companies that haven’t gone public but are valued at \$1 billion or more. Unicorns barely existed in 1999. Now there are more than 260 worldwide, with technology companies dominating the list. And if signs emerge that the privately owned unicorns are faltering, the value of publicly owned tech companies is not likely to hold up either.

We can never know when the end will come. Still, there are three critical signals to watch for. The first is regulation. The tech giants are seen today as monopolising internet search and commerce, and they are angling to take over industries such as publishing and automobiles, raising alarms at antitrust agencies in Europe and the United States. Fear that new internet technologies are doing more to waste time and brainpower than to increase productivity has already provoked a backlash in China, where officials recently criticized online gaming as “electronic heroin.” A regulatory crackdown on tech giants as either monopolies or productivity destroyers could pop the allure of tech stocks.

The other signals are more familiar. Going back to the “nifty 50” stocks of the 1960s, nearly every big market mania ended after central banks tightened monetary policy and many people who had borrowed to get in the game found themselves in trouble. The dot-com bubble peaked in 2000, after the Federal Reserve had increased interest rates multiple times. The current boom will likewise be at risk if an increase in inflation compels the Fed to raise interest rates beyond the modest rise the market currently expects.

Finally, watch for tech earnings to start falling short of analyst forecasts. The dot-com boom was driven in part by increasingly optimistic predictions for technology company earnings, and it imploded when earnings started to miss badly. Investors realised then that their expectations about profits from the internet revolution had become unreal.

Of course, no two booms will unfold exactly the same way. We are now eight years into this bull market, making it the second longest in history, behind only the run-up of the late 1990s. No bull market lasts forever, and while it is clear that we are entering the late stages of this cycle, it is impossible to say whether this moment is like 1999, or 1998—or earlier. The clocks have no hands, and the black horsemen may appear at any time.

NYT

GOLD & GST Taxing gold efficiently

MP AHAMMED

Chairman, Malabar Gold & Diamonds



GST alone can’t bring order to the sector where unaccounted businesses dominate

ONE OF THE key intents of rolling out GST was to make India a single market with similar tax slabs and, to the best extent possible, ushering in uniform prices for traded commodities and services.

Overcoming the teething troubles of the transition into one-market paradigm, many commodities may fall into the one-price bracket gradually or at least the price difference may come down marginally. But it is unlikely that gold will have a single price across the country in the immediate future.

Many weeks into GST regime, gold prices still show vast divergence from market to market. The price for 10gm of 22 carat purity gold in Chennai on July 14 was Rs 26,270, whereas the rate was Rs 27,410 in Mumbai, Rs 26,800 in Delhi, Rs 27,390 in Kolkata and Rs 26,370 in Hyderabad. Only in Kerala and Bengaluru, the price points converged at Rs 26,100. So, the price difference between Kerala and Mumbai was over Rs 1,300, which is crucial. The vexing trend in gold prices happens despite a single GST rate of 3% across the country. This calls for attention from the government, not just because we are the fifth-largest consumer of gold in the world or gold forms the second-largest asset class in the household savings basket after land, but also because it does not resolve to create a single market.

It is a fact that GST alone cannot bring the desired order, transparency and discipline into the sector where unorganised players and unaccounted businesses dominate. A number of factors decide the pricing. But a correction is possible to a great extent through some constructive steps. First, the new tax system needs further regulatory props or support from the authorities to weed out the undesirable elements that trigger divergent prices. Equally important is the role of the free market arriving at realistic price through independent trading platforms that will leave less room for any foul play or price rigging.

A major lacuna in the gold regulatory ecosystem is the lack of an official oversight body that looks into the price formation in gold market. Currently, board rates are fixed in different markets by a set of bullion dealers. Though the dealers take into account the international rate and add up customs duty and other taxes to arrive at the market rate, a uniform price across markets still remains elusive because of the local pulls and push in that particular market. Sebi is supposed to oversee this mechanism, but it seldom happens as the stock market regulator is heavily burdened with other priorities.

In the pre-GST era, the brunt of the blame for such differential pricing was borne by varied tax rates existing in different states. But even in the post-GST scenario, the reality on the ground has not changed much. Therefore, an oversight body which is vested with sufficient powers or a self-regulatory organisation becomes the need of the hour to ensure a level-playing field for all concerned. The government can also nominate independent experts to make the process more transparent.

Another factor that tilts the scale in favour of unorganised players is the availability of gold in the grey market. This curtails the pricing power of organised players who procure gold from official channels, after duly paying duties and taxes.

To put it succinctly, GST is a necessary condition but not sufficient to ensure a level-playing field or to bring gold standards to the yellow metal segment. We need more follow-up steps to walk into days of “one nation, one market, one tax and one price” for gold. It will be better if such an initiative comes from within the industry rather than from the government, since the latter may lead to the return of the Inspector Raj, stymieing the growth of the industry and stumping its global ambitions.

Another desirable option is to emulate the Shanghai Gold Exchange model, with a separate trading platform to arrive at spot prices driven by pure market forces. This will make pricing more transparent and trading more efficient based on full information, eliminating grey areas of the trade.

A major lacuna in the regulatory ecosystem is the lack of an official oversight body that looks into the price formation in gold market

CALLLED UP PUSHPA Bhargava at about 6 pm on January 16, seeking an appointment. I was curious to know why he was so opposed to genetic modification of crops. Bhargava told me to come right away as he was going to be on dialysis the next day. He said he was one of the about two dozen kidney trouble patients in India to have dialysers at home. He was living at the other end of the city. He gave me elaborate instructions on how to reach there and handle the electronic security device at the entrance. I braved the peak Hyderabad traffic and reached his house, which is a multi-storey building named after his wife Manorama, in about two hours.

Bhargava liked to speak and it was mostly about himself. He set up the Centre for Cellular and Molecular Biology (CCMB) in Hyderabad. He claimed to have coined the term “biotechnology,” in a concept note on the centre. In an obituary, a newspaper called him a pioneer in the field of biotechnology. When I referred, a question with “You are a biotechnologist,” he angrily retorted: “To call someone like me a biotechnologist is an insult.” He was a “modern biologist” who hadn’t had one single formal lesson in biology. I have never learnt biology. The world knows me as a biologist.” Bhargava seemed anxious that his keen intellect was not obvious to the person facing him.

Why was he opposed to Bt cotton, which is genetically engineered with a protein derived from a soil bacterium to be poisonous to bollworms? Before he answered that, he claimed patent rights on “genetic engineering.” He had coined the term, he said. He was not opposed to the insertion of transgenes. He was among “the first to say you should put

A modern biologist who didn’t formally study biology

Pushpa Bhargava cited principle to oppose Bt cotton; vanity seems more like it

VIVIAN FERNANDES

Editor, smartindianagriculture.in. Views are personal



foreign genes into plant and animal cells,” sufficing the statement with a slight bow of humility “if I may say so.” And then another claim on greatness: “Our lab at CCMB was one of the first to start work on this.”

But when the technology was developed by “a close friend of mine” Paul Berg, “we were very scared.” Berg was awarded the Nobel Prize for Chemistry in 1980. At the 1975 Asilomar Conference in California, where hazards and regulation of biotechnology were discussed, it was decided that toxic genes should not be put in living organisms. Bhargava cited that as a reason for opposing Bt cotton.

But further into the interview, it turned out that Bhargava’s opposition had more to do with hurt vanity than fine principle.

Monsanto, the American leader in agribiotechnology, he said, had offered Bt cotton technology to the Department of Biotechnology (DBT) set up by the then Prime Minister Rajiv Gandhi “at my suggestion.” (Bhargava obviously was offered the position of secretary, but his conditions were unacceptable to the government.) Chittaranjan R.Bhatia, who was DBT secretary from 1993 to 1995, said Monsanto wanted Rs 63 crore for the technology.



PORTRAIT: SHYAM

“I said this is ridiculous. I was the chairman of the only Indian biotechnology company, Avesthagen, set up by Viloo Morawala-Patell. I said, ‘Look, Avesthagen will do it for you for Rs 3 crore. Why spend Rs 63 crore?’” Monsanto, according to Bhargava, brought down the price to Rs 32 crore. But Bhargava believed the technology could be developed domestically for Rs 3 crore. The deal never went through.

So Bhargava was not actually opposed to putting a toxic gene in a living organism; he was opposed to somebody else doing it for what he considered a fat price.

Bhargava then went on to make charges against DBT secretary Manju Sharma during whose tenure Bt cotton, developed by Mahyco Monsanto, got approval for commercial cultivation in 2002. Critics say Monsanto has profited immensely from the technology in the past 15 years. They should thank Bhargava, who, by his own admission, had stopped the country getting the technology at a fraction of the price it is paying now as royalties.

That obstructive role continued. Bhargava had a role in depriving Indian farmers of Bt brinjal technology. Bangladeshi farm-

ers are profiting from it since 2013.

Despite being frail and unable to move without a wheelchair, Bhargava was on the dais at a seminar organised by the Rashtriya Swamasevak Sangh affiliate Swadeshi Jagran Manch (SJM) against genetically modified mustard last September. Unlike Bt cotton, the GM mustard hybrid, DMH-11, which the Genetic Engineering Appraisal Committee recommended for cultivation in March, does not contain toxic genes.

When asked how he could square his protest against “intolerance” in December 2015 and offer to return the Padma Bhushan with the embrace of the SJM, he said he had offered only issue-based support. At one time, he was called a “communist,” he said, because he had named his son after Mohit Sen, a communist leader. “On the whole, I find this government is backward-looking, but if it does something good, I will be the first to say it is doing good.”

Bhargava was a member of the Technical Expert Committee appointed by the Supreme Court to advise it on GM crops. He called for a ban on GM crop technology along with four other members. Only the sixth, RS Paroda, an agricultural scientist, dissented.

Most anti-GM activists have little knowledge of the science. Their opposition can be dismissed. But Bhargava’s voice gave their uninformed shrillness the veneer of respectability. He has done much to discredit the technology and deny choice of good seed to farmers.

(Pushpa Mitra Bhargava, a pioneer of biotechnology and founder of the Centre for Cellular and Molecular Biology, died aged 89 in Hyderabad on August 1.)