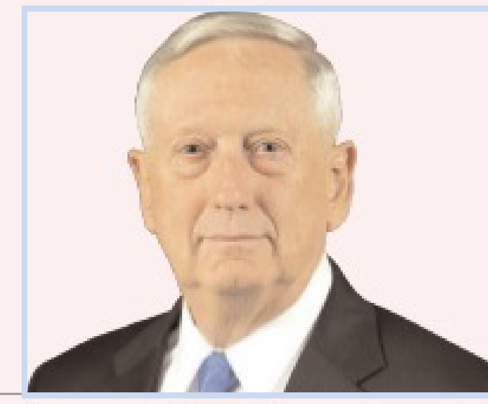
Opinion

MONDAY, AUGUST 21, 2017



US & NORTH KOREA

US defence secretary James Mattis

"We are prepared, we are prepared militarily, we are prepared with our allies to respond, if that is necessary. That (military) is not our preferred pathway. That's been made clear as well"

RationalExpectations

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Might as well raise interest rates

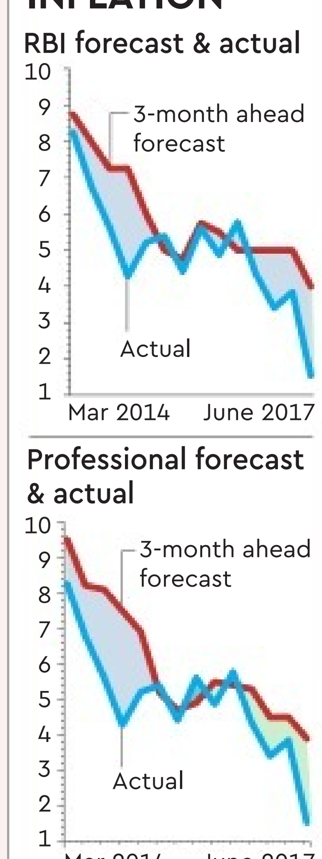
Acharya fears rate-cuts may result in bad investments and Patra fears this may worsen financial imbalances!

EVEN A CURSORY look at the two charts in the latest *Economic Survey*, out recently, on inflation forecasts versus actual levels over the past three years is instructive. There are large forecast errors—in the last 14 quarters, inflation has been overestimated by 180 bps in six quarters, and we are talking of just 3-month-ahead forecasts. But RBI has been almost as wrong as professional economic forecasters, so even its critics have to admit it was not alone in doing so.

You may or may not agree with chief economic advisor Arvind Subramanian's critique of RBI, but when the errors are so large, it is important to understand why—the *Survey* devotes a full chapter to just this. While Subramanian gives many reasons for why there has been a paradigm shift in India's inflation outlook, he argues that, broadly speaking, high inflation has coincided with surges in commodity prices—especially oil and food—and, in some cases, due to sharp depreciation of exchange rates.

While arguing that the government's supply management has been very good and that farm production has become less volatile or monsoon-proof, the CEA argues there seems to be, broadly, a cap of $50 per barrel for global crude prices since, at that price level, US shale becomes profitable—so, the moment oil prices cross this, US shale swings into production and brings prices down. The fact that the global economy remains sluggish also suggests it is unlikely that commodity prices are going to reach anywhere near the levels they were at when the Chinese economy was on a tear. It is, for instance, when global food prices rose by large amounts that India has had to hike MSPs by large amounts and that, in turn, caused local CPI to spike.

It is not clear how members of the Monetary Policy Committee react to Subramanian's argument about inflation having settled into a dramatically lower trajectory for the medium term, but certainly there is less focus on the upside risks from, say, global commodity prices rising. In even the last monetary policy statement in June, RBI said "at the current juncture, global political and financial risks materialising into imported inflation and the disbursement of allowances under the 7th central pay commission's award are upside risks."



Source: RBI and Survey Calculations

That, of course, is the reason why all members of the Monetary Policy Committee, with the exception of Michael Patra, voted for a cut in the repo rates to stimulate the sluggish economy—the only other dissent was from Ravindra Dholakia who, once again, argued in favour of a 50 bps cut since, in his view, the RBI forecast would once again overshoot inflation by around 50 bps. Most talked of output gaps still being large enough to exert a downward pressure on inflation, of depressed demand conditions etc. While Patra thought there could be second-round effects of HRA on inflation—Governor Urjit Patel felt it was something to watch out for—Chetan Ghate felt the impact would be muted due to "depressed demand conditions in the real estate sector". And while others, like Pami Dua and Viral Acharya talked of the inflationary impact from farm loan waivers, Dholakia pointed out that no state had breached FRBM limits while making waivers.

The *Survey*, on the other hand, argues the loan waivers will be contractionary since states will spend a lot less because of the need to fund them and this will not be compensated for by an increase in consumption by those that get the waivers. While members can have different views on the future, the question that arises is how long should MPC wait for known-unknowns to materialise—it could, theoretically, wait till next March or even later to take a call on the impact of loan waivers.

Some of the justifications given by members for their recommendations is even more bizarre. Patra, for instance, argues that "the financial environment is bubbly and frothy ... a perfect recipe for a financial imbalance ... a rate cut can amplify it if the central bank is seen as encouraging risk-taking."

Acharya says "higher real rates are justified in the meantime as absent efficient transmission, attempts to address symptoms of balance-sheet problems with aggressive monetary easing get wasted and can even backfire by misallocating investments, fuelling asset price inflation, creating false hopes of a growth boost, and relaxing the pedal on deeper structural reforms". While former CEA Arvind Virmani has dismissed the argument in a series of excellent tweets, the short point is that, apart from demand-side gains from lower rates, RBI is influencing the risk-free interest rate while "misallocating investments" will depend upon the risk premium attached by investors/lenders to different activities. And the counter-question: will raising interest rates prevent misallocation, because if it does, we might as well do it.

ChangedCBFC

The change of guard at the CBFC may make it less of a censor, more of a certifying authority

THE RECENT CHANGE of guard at the Central Board of Film Certification (CBFC) has brought with it welcome change in thinking, too. Filmaker Pahlaj Nihalani, who was sacked as the CBFC chairperson last week, had become the bête noire for almost all, from film producers to viewers and even his fellow CBFC-members. While the film-makers and viewers had both rallied against the CBFC censoring films and ordering what has been monikered as *"sanskaari"* cuts—any representation of sexuality (more so, female sexuality), cuss words in dialogues, etc—a few CBFC members had even complained to the information and broadcasting ministry about Nihalani allegedly effectively gagging them in meetings. The short point is that the CBFC has gained considerable infamy over the last couple of years, and many trace this back to Nihalani's office.

New chairperson, adman and lyricist Prasoon Joshi, has however set the right tenor, though against a backdrop that perhaps demanded a more considered response. After being criticised on social media fora for missing his first day in office as the CBFC chair—Joshi has since clarified that he was unwell—he outlined what can be expected from his being at the helm. In response to the 'trolling', Joshi released a statement saying that he saw the role of the chair and the Board in general as that of a guide for the institution rather than hands-on micromanagers. Joshi, who has maintained in the past that the CBFC's role was to certify films rather than censor them, should find an ally in Vani Tripathi Tikoo, a current member of the Board. Tikoo, too, has endorsed a certifying-authority role for the CBFC instead of it playing the censor. With more women members on the Board this time, portrayal of women and gender issues will perhaps get a more sensitive handling by the Board.

NEW INDUSTRIAL POLICY

INDIA MUST CRAFT ITS INDUSTRIAL POLICY AROUND SMART MANUFACTURING, SERVITISATION, MICRO-ENTREPRENEURSHIP AND SKILLING & LABOUR REFORM FOR THE 21ST CENTURY

Don't miss the bus on servitisation revolution

ARINDAM BHATTACHARYA

Senior partner, BCG India, and director, BCG Henderson Institute
Views are personal

THERE WERE REPORTS in the media recently that the government is working on a new industrial policy, which was last revised in 1991, when the licence raj was abolished and many of the restrictions that constricted the scaling up and competitiveness of the sector were removed. Without doubt, 1991 was momentous point in time for India as the country faced a deep economic crisis, and it was a period that coincided with growth of what is now recognised as the third industrial revolution launched by the development of internet and WTO-led efforts to open up global markets.

In the 25 years since the launch of the last policy, the industry's share of GDP has stagnated at around 30% (the share of manufacturing remained around 15%) while the share of services grew by 15% to nearly 54% despite the lack of an explicit policy guiding the sector's growth. While the policy unshackling probably held back any fall in the share of industry, not addressing all the inter-related challenges of the industrial system (e.g. labour, infrastructure, ease of doing business, etc) at the same time, within the emerging global industrial context, ensured that we failed to exploit the huge opportunities from the third industrial revolution—unlike China, which re-wrote the history of industrial development.

India is at another such juncture with regards to industrial development which, coincidentally, comes at a time when digital technologies, collectively called the Internet of Things (or IoT), are transforming industry—a phenomenon many are terming as the fourth industrial revolution. While the economic crisis caused by the dire balance-of-payment situation led to the 'India moment' in 1991, in 2017, as the fastest growing large economy in the world, it would seem we face no such crisis-driven compulsion. However, in reality, we face another equally serious crisis, that of not creating sufficient jobs in a country which will have the largest working age population in the world by 2050.

So, the objectives of the new industrial policy are clear—facilitate the creation of millions of new jobs in the context of the fourth industrial revolution which, ironically, makes job creation more difficult. More importantly, the core question of 'what is industry?' is being raised by the shifts in global business models in the fourth industrial revolution. This is also something the new policy must address.

How can the proposed 2017 industrial policy address these issues that seem like dichotomies? The answer, surprisingly, in lies in discarding the labels of 'industry' and 'services' that we have all gotten so familiar with and that have guided our policy thinking and making in the past decades. No one questions the profound impact on work profile, type of jobs and number of jobs created that the fourth industrial revolution will have. It will transform global supply-chains, competitiveness of industries and countries. But what is perhaps less recognised is that it will also blur the boundary between industries (e.g., Google and Apple getting into car-making) and, even more importantly, the boundary between 'industry' and 'services' (e.g., are Uber and Ola part of automotive value-chain or the services sector?). This rapidly growing phenomena (we have termed this as 'servitisation' in BCG—products being sold as services/solutions) is potentially transformative for policy-making.

Thus, to have an effective industrial policy for the 21st century digital world, we need to re-set our past mental models, definitions, and industrial framework for policy development. Doing so leads to the emergence of four inter-connected 'transformational' themes:

Smart manufacturing: If we do not want to miss the global manufacturing-growth bus, like we did at the time of the third industrial revolution, we have make our industry 'smart' by rapidly and widely adopting Internet of Things even if this means that the job elasticity of growth will fall. Here, my submission is that it is not enough to make our manufacturing companies 'smart', but the policy should also support the emergence of India as a research-&-manufacturing (e.g., sensors) hub for smart manufacturing technologies and development of standards, that are still at an early stage of development. This will sustain the future competitiveness of the country.

Servitisation: This trend will be a defining characteristic of the fourth industrial revolution. For many global companies, this is already the fastest-growing revenue stream. Growth of servitisation (this is true world-wide) faces hurdles around the lack of skills—both for its own needs in India and to exploit the huge opportunity for providing such services to global firms—issues of standards and inter-operability for seamless data flow, ill-defined privacy laws, etc. How we define the value-chain of products and services for the purpose of taxation will also have a huge impact. The new policy should articulate this opportunity and how to address the challenges of moving to digitally-delivered solutions to both industrial and individual customers.

> **Growth of servitisation faces hurdles around the lack of skills—both for its own needs in India and to exploit the huge opportunity for providing such services to global firms—ill-defined privacy laws, etc**

Micro-enterprises: A key characteristic of the fourth industrial revolution is the emergence of a new industrial and work structure, which is changing the way enterprises and entrepreneurs function and compete with each other. Digital technologies are now enabling firms, however small they may be, to overcome the barriers of scale and access resources, customers, and suppliers easily. Individuals are finding it easier to become micro-entrepreneurs, rather than only job-seekers in larger organisations, offering their time and talent in the market via the on-demand/platform economy. Growth of servitisation is pushing this even further as micro-entrepreneurs become an important part of the last-mile ecosystem delivering solutions to the customer. India has had a ministry for MSMEs for many years, and has launched a major initiative in Start-up India. But we still continue to face major challenges in building a dynamic environment for both, not the least of which comes from their working in silos. Addressing this challenge has to be one of the central themes of the new policy.

Life-long learning system and labour laws for the 21st century: Lack of skills and scale, as a result of our archaic education system and labour laws, respectively, have been the black-spots of our economy. I have intentionally put these together, as one without the other will be ineffective to create the enabling environment needed to deliver against the opportunities in the fourth industrial revolution. The new industrial policy has the unique opportunity to address both as increasing digitisation and transformation of work will require a fundamental change in our approach to skilling and types of skills, content of work and the types and definition of jobs and their regulation. For example, 'Uber-isation' of jobs will only accelerate as we see a step-jump in micro-entrepreneurs, and these jobs will need very different approaches to both skilling and labour regulations. Large companies will have fewer jobs and more jobs will be created in services than hard manufacturing. While the industrial policy itself cannot address both these themes in depth, it is clearly the overarching document that articulates the new industrial context which should guide the framing of laws and policies by their respective ministries.

India 'missed the bus' with the third industrial revolution. The new policy has the opportunity to make sure we do not do it once again with the fourth industrial revolution.

Looking for the missing jobs

With the changing nature of employment itself, we may have to look for earning opportunities rather than jobs

MEGHNAD DESAI

Economist and Labour peer

ARVIND SUBRAMANIAM'S HAS been been a refreshing appointment to the chief economic adviser position. He has raised the intellectual level of the *Economic Survey* reports as well as the style of presentation. The latest *Survey* is in the same spirit of inquiry, with lots of hypotheses, conjectures along with data. It has been much remarked upon since it came out. People have noticed the slightly downbeat tone for the GDP-growth forecast. The inflation outlook is the best we have had for many years. But the *Survey* is right to warn about the economic costs of knee-jerk populism displayed in the cancellation of farmers' debts. It is time someone stood up for fiscal responsibility.

There are larger issues which need to be raised in light of the current mood—which is less triumphalist on the economic front than was the case early last year, when India was being hailed as the fastest-growing economy in the world. The government chose to experiment with one shock and another long-run revolution. The shock was demonetisation. It had to be a surprise. It was going to cause an upheaval. It was going to be criticised. But it seems to have had no political backlash as far as the BJP is concerned.

That said, there are two issues which the *Survey* has rightly addressed. One is the impact on GDP growth. As of now (and the data will, no doubt, be revised), the impact was the drop of upto 1% in the GDP-growth rate in the last quarter of FY17 from what was previously expected. That was not only predictable (and was predicted by me, among others), but also much lower than what the worst critics foretold. After all, by converting old cash into demand deposits, total money supply is unchanged. So, there was no monetary shock as such. The cost was due to the delay in emission of the new currency. This was pure administrative inefficiency, for which there was no excuse.

The second problem was that the reasons given for the policy shock were confused. The idea that the liabilities of RBI would be reduced due to the non-return of old currency could not be a principal reason. To believe that hoarders would suffer the loss of their cash hoardings was to assume that they would not behave rationally and take defensive action. There are still claims being made on the size of the non-return, but to make that an objective is to lose the sight of other advantages of demonetisation.

But those are old issues. The implementation of GST seems to be causing some short-term friction. We will not see the full size of this effect till much later. But if any of this cost is due to bad implementation, it should signal to the prime minister, as I argued in the issue of new currency, that the civil service we have is not fit for the purpose of radical reform. As far as one can see, only Nandan Nilekani has been able to deliver a radical reform without a hitch. That shows the advantage of inducting private sector talent if you need serious reform to be implemented.

The *Survey* does not address the question everyone is asking. Why are no jobs being created? The question has deep and widespread ramifications for the running of the economy. Crudely put, if the economy has been growing at the rate of around 6-7%, to say that jobs are not being created seems highly unlikely. It is an identity. The growth rate is the sum of growth of employment plus the growth of productivity. To say job growth is zero is to argue that productivity growth in India is 5-6% per annum. Not likely.

Let us face it. Data are lousy when it comes to employment. I also find the index of industrial production, with its high month to month volatility, incredible in the bad sense of the term. When the GDP data were recently revised, the crux of the revision was information on MSME companies. If this is so, then we need much better data on the movements of gross value added in these companies, on a monthly or quarterly basis. But then, we need to follow through the employment consequences of this sector.

It may be that jobs are defined as those in the formal sector. In the informal sector, especially in the e-businesses, employment is often like self-employment. A person gets hired as and when needed, for a specific period of time, but without any wages/hours contract. This is known in the UK as the gig economy. There has always been a large casual employment economy in India, with jobs given on a daily basis. This may be spreading to better paid jobs as well.

We may need to look not for job creation but for earning opportunities, whether as employees, or as self-employed or as casual contract labourers. May be there are earning opportunities being created, but no one calls them jobs.

LETTERS TO THE EDITOR

Probe into Jaya's death an eyewash

The announcement made by the Tamil Nadu Chief Minister that an enquiry commission would be constituted to probe the death of Jayalalithaa is nothing but eye-wash, particularly after almost all evidence stands wiped off with the efflux of time. This is a perfect example of closing the stable after the horse has bolted. This is seen as a measure only to pave the way for the merger of the two warring factions of the AIADMK party and to hoodwink the cadres who very strongly believe that mystery shrouds the death of Jayalalithaa. Moreover, the unilateral decision of the AIADMK government that Poes Garden, where their departed leader lived, would be converted into a public memorial is again gimmickry in that the said Veda Nilayam is said to have been bought and registered in the names of Jayalalithaa and her mother Sandhya. As such, Deepa Jayaraman and her brother are the legal heirs to this property now. Moreover, is it morally sound and ethical to create a memorial in the name of a person who has been convicted by the courts for corruption?

— Tharcius S Fernando, Chennai

Rupee hurting export

Apropos of Jamal Mecklai's recent column "Is the rupee at a fair value?", India's exports, in the recent years, have experienced hard times. The current situation of appreciation experienced by the Indian rupee will act as a demoralising factor for exporters because India has a narrow basket of export commodities.

— Sanat Shrivastava, Bhopal

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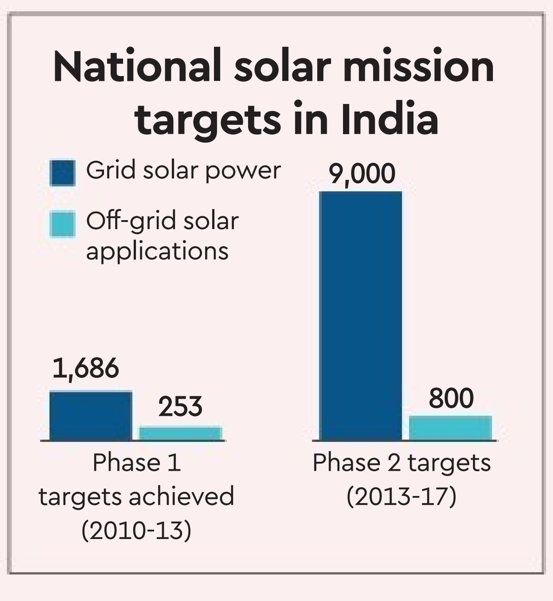
Powering solar waste management

India has set an example by leading the green energy revolution. It is now time for the country to set up mechanisms for solar waste management at an early stage

GROWING POPULATION AND a rapidly rising demand for electricity in both rural and urban areas, and across sectors, has put an extreme pressure on the ecology. With one of the lowest per-capita electricity consumption and one of the largest solar generation targets, India is paving the way forward to bring sustainable and clean electricity to millions. The tropical country has a vision of reducing its emissions intensity by enhancing the share of renewables in its energy mix.

The real thrust on clean energy came with the launch of the National Solar Mission in 2010. As part of the mission, over 1,600MW of grid connected systems and 253MW off-grid systems were installed and commissioned during 2010-2013, during the phase 1 (see chart). The phase 2 of this mission will steer the pumping of 800MW of off-grid systems, primarily in rural areas. In the 2015 Union Budget, Prime Minister Narendra Modi increased the targets of the National Solar Mission 2010 fivefold. The plan of scaling up generation targets from 20GW to 100GW (60% through large and medium scale solar projects, and 40% through rooftop solar projects) by 2022 is the largest ever clean energy target set by any developing country. So far, India has achieved over 8,000MW of grid connected solar power.



Currently, India is at the fourth place on the global largest solar power generators' leader board. These statistics are definitely a ladder to one's cognitive abilities for computation of volumes of panels, batteries and other associated electrical and electronic components that are being pumped to meet clean energy targets.

The missing piece

It is now time to address the elephant in the room. A 2016 report published by the International Renewable Energy Agency (IRENA) projects India as the producer of over 78 million tonnes of solar e-waste by 2050. While solar technologies enable us to generate enormous amounts of green energy, the components used for generating electricity are themselves not biodegradable. Hence, proper handling of components, after their useful life is over, becomes imperative. With exponentially ramping up of solar power generation, how would we address the prospect of used panels inundating landfills and leaching toxic waste into the environment?

India's existing rules document—E-Waste Management Rules, 2016—clarifies on the roles and responsibilities of the key stakeholders involved in the e-waste value chain. This is the set of rules referred to in most of the solar power tenders for solar projects in India. However, it does not specifically mention about the issue of management of used components of solar power systems—it only addresses household electronics and not PV panels.

Advanced markets like Japan and the growing market of the US face challenges similar to that of India, with no specific regulation for the solar waste generated in these countries, as PV panels are still not identified by the law for specific recycling and regulation. However, in the UK and Germany, its collection, treatment and recycling have been reflected in the respective implementation of the Waste Electrical and Electronic Equipment (WEEE) Directive. This has led to the creation of a separate category for PV panels. Germany has also established a collective producer responsibility system for end-of-life management of business-to-consumer PV panels.

What is holding us back?

At present, the business doesn't find solar waste management a very lucrative opportunity. In the off-grid sector, owing to the lack of aggregated volumes of PV waste, large players keep their hands off. Large utility scale power projects are not expected to produce PV waste immediately. In general, it will be almost after two decades of the installation and commissioning of a power plant when the efficiency of panels would have fallen below acceptable levels. It is then that the project owners would treat used PV systems as scrap. In the future, it is also expected that power plant owners and commercial spaces would replace PV installed systems, before useful life of panel is over, if very high-efficiency panels are available to them. In the current situation, it is mostly the unorganised waste collectors who are interested in aggregating e-waste, including panels and batteries. This is evident from the fact that, by the end of last year, there were less than 200 recyclers and dismantlers of e-waste registered with the Central Pollution Control Board (CPCB) of India.

There is also a fear that raising concerns about the toxic nature of components used in solar PV system will discourage uptake of solar systems. This will hamper the green tag associated with ambitious clean energy programmes of the government and civil society institutions. Further, doing so might give rise to a wave of pressure groups and environmental advocates who would promote other green technologies such as small hydro and wind energy. Consequently, existing business sentiments might get hampered and the cost of ongoing projects might rise.

A stitch in time saves nine

India has set an example by leading the green energy revolution. It is now time for the country to become an early starter by setting up mechanisms for solar waste management at an early stage; and the efforts in the country have already started. For example, with support from the Norwegian ministry of foreign affairs, The Energy and Resources Institute (Teri) think tank is undertaking a long-term project for recycling of solar PV modules and battery technologies.

As a first step, in the off-grid sector, manufacturers and retailers of off-grid products must be mandated to ensure inclusion of relevant text about safe disposal of panels and batteries in user manuals of products such as solar lanterns and solar home light systems. In big-sized tenders, bidders must be mandated to submit proof of evidence for having trained manpower resources and adequate facilities for management of solar waste. In the off-grid areas, setting up institutional mechanisms for waste aggregation will prove to be useful. For example, the network of the already operational Akshay Urja Shops can be leveraged for aggregation of larger volumes of solar waste at the block or district levels. Institutionalising waste management as a service offering, apart from retail sales, will open newer avenues for micro-entrepreneurs who are operating in the clean energy access space. However, putting regulations into place would not suffice until strict compliance is ensured.

In the power sector, we are gearing up to put future-ready systems in place. Similarly, for waste management, it is important for us to plan for the future. It is for us to decide whether we want to interpret green projects in the way we had interpreted the Green Revolution in India, or we wish to look at them through the lens of systems approach.

WATER MANAGEMENT

Lessons in transformation

PALLAVI MODY

Professor, SP Jain Institute of Management and Research, Mumbai. Views are personal

The story of Satyamev Jayate Water Cup is a lesson in motivational leadership

ON AUGUST 7, a small news appeared in a few news dailies. It was about the announcement of Satyamev Jayate Water Cup 2017 prize. The top three villages were awarded ₹50 lakh, ₹30 lakh and ₹20 lakh, respectively, from among 1,300 villages of Maharashtra. The villages competed to create structures for watershed management and rainwater harvesting. The project was the brainchild of Paani Foundation, founded by actor Aamir Khan and the team of Satyamev Jayate, and supported by the CM of Maharashtra and major Indian industrialists.

Is there anything more to the news? Each year, draught afflicts thousands of villages in Maharashtra. The images of parched land, women walking miles to bring home water and shocking statistics of farmer suicides have the first recall when we think of draught in the state. Though India is classified as a water-adequate nation, water shortage in rural areas is prime cause of miseries. Decentralised watershed management is the scientific solution to the problem. A heartening outcome of this competition is that the villagers realised the solution to water scarcity problem and impending draught is in their own hands.

Satyamev Jayate, Aamir Khan's TV show that started in 2012, raised issues that needed social change. The response to the show was phenomenal as people from various walks of life were ready to make a difference. The team thought if they worked in a specific area on a specific issue, they could be part of a massive social transformation. They narrowed down on the issue of water scarcity and decided to work in Maharashtra.

The story of Satyamev Jayate Water Cup is one that needs to be told. It is a lesson in motivational leadership. It is about thousands of people who participated in the competition and were empowered. The pilot project in 2016 covered 116 villages in three tehsils. This year, they could motivate 1,300 villages in 30 tehsils to participate and make it a people's movement.

Paani Foundation roped in Watershed Organisation Trust as knowledge partner. The team simplified the concept of rainwater harvesting using a model of contoured land. They demonstrated that rainwater would naturally flow away in such a terrain. The task was to trap the water by digging trenches to increase water absorption. The concept was made simple for people to practice. The foundation trained five persons per village. The training had a technical aspect of watershed management, where the specifications for depth, width and length of the trenches were explained. The training included repairs and maintenance of old structures for watershed management.

Over 5,000 people received training over four days in residential camps. The villagers, who had first-hand experience from the benefit of this work in the previous year, became the ambassadors of this movement. People from competing villages learnt as they went through a 'do-it-yourself' course in watershed management and rainwater harvesting.

The second aspect was the leadership challenge. It was the challenge of getting people together for the task. It was a difficult time of the year to sustain the interest of the people for six weeks in the hot summers with temperatures in the range of 40-45 degree Celsius. What is heart-warming is that the foundation succeeded in harnessing the power of communication to mobilise, motivate and make people work.

The period of six weeks became a festival. With a morning alarm of *bhopu*, people would gather by 7:00 am to be transported to the site. By mid-morning, they were served snacks and tea by the volunteers. They were home for lunch, and again on the site in the afternoon. Evenings had meetings with motivational information and entertainment. Several film stars visited the villages to boost the spirits. A programme 'Toofan Aala' was telecast that played videos of stories from other villages.

What the participating villages experienced was unprecedented. It was a realisation that the solution to water scarcity was simple and could be tackled by own manual labour. Hope and confidence were restored and a 'can do' attitude was built. Burying the differences of caste, class and religion, almost the entire village population worked for no financial reward. It was *shramdaan*, offering of own manual labour.

This is a story of working at the grass-roots level for bringing a change. The agents of change management may come from outside, but the impact of this intervention is so strong it transforms lives. Newspapers and social media are full with examples of polarisation in the society. Do we take a note and inspiration from the positive work being done in some pockets? Do we have more change agents forthcoming?

Untold story of credit growth decline

Sectors such as credit to automobiles and auto ancillaries may require some rethinking by traditional lending channels

SOUMYA KANTI GHOSH & VIPUL MAJMUDAR

Ghosh is Group Chief Economic Advisor, Majmudar is Head, Business Research, State Bank of India

THERE IS NO DENYING the fact that credit growth continues to decline. In the current fiscal, there has been an incremental credit de-growth of ₹1.5 lakh crore. However, interspersing RBI's sectoral deployment of bank credit data with that of sectors filtered from listed corporate loan funds data, we find that (1) credit flow in certain sectors to have flown away from listed sectors (based on listed companies data) and (2) traditional lending source has also undergone a structural change.

Here is our understanding of how the credit numbers tell the story. Going by the sectoral deployment of bank credit, non-food credit grew by 28.3% or a CAGR of 9% during last three years, i.e. FY14-17. Within non-food credit, loans to personal segment as well as agriculture and allied activities put together grew by around 56% in the same period, yielding a CAGR of 16%. Barring the above two segments, the other non-food credit grew at a snail's pace at CAGR of 5.2%.

Clearly, credit to industry barely grew during the last three years! There are some exceptions, however. In services, sectors such as trade, NBFC and professional service reported healthy credit growth.

To have a better understanding of the credit growth across sectors, we next mapped the movements in credit growth across industries:

◗ Industries that witnessed a more than proportionate increase in loan funds as compared with the increase in RBI credit for the three-year period ended FY17; and

◗ Industries that witnessed a decline in loan funds despite increase in RBI credit for the three-year period ended FY17.

The results were a revelation. Industries that witnessed a more than proportionate increase in loan funds corresponding to bank credit are sectors like cement, pharma and auto ancillary, etc, (table 1). These group of industries appear to increasingly resort to raising debt resources outside traditional banking channels, possibly through overseas funds, ECBs, institutional borrowing, mutual funds, etc.

We further attempted to look at the rating movement of the above mentioned sectors. We found that the upgrade to downgrade (U/D) ratio is above 1 for all the above sectors (table 1). Moreover, sectors such as pharma and automobiles where maximum loan funds growth is observed from other than banking system have better U/D ratio of more than 2x. These clearly indicate that such sectors, because of a better credit profile, are able to exploit the non-banking sources also better.

Sectors where loan funds rose more than RBI's sectoral credit

(₹ bn) Sector	RBI FY14	RBI FY17	Loan funds FY14	Loan funds FY17	Increase/(decrease) RBI	Increase/(decrease) loan funds
Cement & cement products	539	542	319	413	3	93
Drugs & pharmaceuticals	487	464	439	909	(23)	471
Vehicles, vehicle parts & transport equipment	665	736	1,063	1,490	71	428
Textiles	2,022	1,963	993	1,165	(59)	172
Diamond, gems & jewellery	699	690	181	256	(9)	75

Where loan funds dropped despite rise in RBI's sectoral credit

(₹ bn) Sector	RBI FY14	RBI FY17	Loan funds FY14	Loan funds FY17	Increase/(decrease) RBI	Increase/(decrease) loan funds
Trade	3,258	4,279	783	439	1,021	(344)
Fertiliser	306	335	276	256	29	(19)
Rubber, plastic & their products	371	392	126	111	21	(15)
Petrochemical	422	507	34	17	85	(17)
Construction	626	822	688	779	196	92

Source: RBI Sectoral Deployment of Credit, Loan Funds as per listed entities C-Line database, SBI Research

On the other hand, industries that are witnessing a decline in loan funds corresponding to bank credit are sectors such as trading, fertilisers, rubber, plastic and their products (table 2). These group of industries are possibly witnessing a credit flow towards non-listed/unrated micro, small & medium enterprise (MSME) entities.

Let us now come back to table 2. For example, in respect of sub-segment trade through FY14-17, we observe that while loan funds outstanding of listed entities declined, RBI credit deployment numbers depict growth. From this, we possibly infer that credit deployment has moved away from listed corporates to unlisted entities/unorganised, possibly, retail trade. Similarly, in construction we infer the same, as can be seen from table 2. There may be other sectors too, but for want of clarification on classification of sector by RBI and our listed database, this exercise may only be read as a fleeting review. For example, we note that while the automobile sector reported increase in loan funds from listed entities database, auto ancillaries reported decline in loan funds during FY17 over FY14. RBI classifies the same as Vehicles, Vehicle Parts & Transport Equipment. Combining automobiles and auto ancillaries from the listed database and going by table 1 stated above, it appears that the extent of increase in loan funds is higher than as reported by RBI (also includes transport equipment), making us believe that incremental credit to these sectors were drawn beyond traditional banking sources. In our analysis, we have not considered sectors where traditional lenders, say, may have converted their debt into equity.

Where sectors reporting decline in loan funds in listed corporates may contradict with increase exhibited in RBI sectoral credit deployment, we are compelled to believe that credit has flown to MSME unlisted entities. Overall, this augurs well for lenders who appear to be derisking and reworking their model for a better tomorrow. However, sectors such as credit to automobiles and auto ancillaries may require some rethinking by traditional lending channels.

(Sunil Sharma contributed to the article.)