AI in agriculture

Given the impressive track record, the future of this field seems promising

FARM VIEW

SURINDER SUD

Artificial intelligence (AI) is making rapid inroads into the Indian farm sector. The ease with which farmers are adopting it indicates that it would soon become a major professional guide for the farmers. A key reason for the farmers' growing interest in AI is the gradual transformation of traditional farming into smart agriculture which requires knowhow and information that goes beyond their conventional knowledge and wisdom. They now need reliable, forward-looking and problem-solving advice which they can get from the AI. Moreover, the rural youth, especially the educated ones, feel more comfortable with mechanised, technology-driven high-value agriculture than the tedious traditional knowledge-based routine farming practiced by their forefathers.

Mobile phones have penetrated deep into the rural areas. About 30 million farmers are estimated to own such phones already. Their count is projected to swell rapidly. The way has, thus, been paved for the AI service providers, such as public sector farm research organisations, information technology companies and startups in this field, to generate and pass on situation-specific and need-based contents to the farmers.

Microsoft is said to be working with Indian farmers in Andhra Pradesh to dispense advisory services in areas like crop sowing, land management, fertiliser application and similar others. The local arm of another multinational company, IBM India, last week signed a "statement of intent" with the agriculture ministry to take up a pilot project on the utilisation of AI and weather technology-driven solutions in agriculture. This project would operate in one district each of Madhya Pradesh, Gujarat and Maharashtra.

This apart, a large number of startups have come up to disseminate the next generation technologies in several critical fields of agriculture. Some of these enterprises are deploying sensors and information technology tools to monitor crop and soil health for the benefit of the farmers. Some others are engaged in generating data-based advisories on the time of sowing, besides issuing alerts against potential risks. Yet another category is of startups collecting, analysing and providing information on input supplies and output marketing chains.

Significantly, the agriculture ministry, as also the Indian Council of Agricultural Research (ICAR) and the state farm universities, are putting in special efforts to popularise AI to improve productivity, production and profitability of farming. An inter-ministerial committee, set up by the agriculture ministry to suggest ways and means to double farmers' income, has underscored the role the digital technology can play in making Indian agriculture lucrative. The technologies identified by this panel for this purpose include AI, big data analytics, block chain technology and internet-of-things (IoT).

The ICAR recently brought out a special edition of its popular publication "Indian Farming" (March 2019 issue) devoted exclusively to AI. This apex farm research body has been instrumental in developing over 100 easy-to-use and farmers-friendly mobile apps covering different areas of agriculture and its allied activities. Of these apps, 42 deal with mainstream agriculture, 27 with horticulture, 10 animal husbandry and veterinary sciences, six dairying, one poultry, three fisheries, 17 natural resource management and 11 integrated farming systems. They carry valuable information on agronomic practices, prices of different farm commodities, weather forecasts and warnings and other kinds of advisory information.

The "Kisan Suvidha" mobile app is a comprehensive portal carrying useful information on most aspects of modern farming. Its contents comprise weather-related information, including extreme weather alerts; market prices; plant protection methods; dealers of inputs like seeds, pesticides, fertilisers and farm machinery; soil health cards; cold stores and warehouses; and veterinary centres and diagnostic laboratories. The market intelligence available through this app contains vital information on the prevailing price and demand trends to let the farmers take informed decisions on selling their produce at the right time and at the right price. Another app, called "mKisan", conveys agriculture-related counsel to the registered farmers through the short message service (SMS) and voice messages in local languages.

However, these are still early days of the application of AI in agriculture. But given the impressive track record, the future of this field seems quite promising.

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CHINESE WHISPERS

No more Vyapam in MP

The Congress government of Madhya Pradesh has decided to wind up Vyapam or the Vyawasayik Pariksha Mandal, which was later renamed as Professional Examination Board (PEB). The government is going to replace it with Rajya Karmchari Chayan Ayog (State Staff Selection Commission). According to Chief Minister Kamal Nath (*pictured*), Vyapam is a symbol of "the Bharatiya Janata Party's scams in the state" and that's why the government has decided to close it down. This is not the first time that the state government is trying to disown Vyapam. In a previous attempt in 2015, the then BJP government had changed its name to Professional Examination Board. Shivraj Singh Chouhan, who was chief minister, had said that the name Vyapam was disgraceful and was bringing dishonour to the state.

Extended quarantine

Journalists were in for a surprise on Monday when they reached North Block to meet officials. They wanted to seek clarity on the fine print of the Union Budget 2019-20 presented by Finance Minister Nirmala Sitharaman on July 5. However, none of them — not even those with a Press Information Bureau (PIB) card — was allowed to enter despite there being no intimation from the PIB. The finance ministry is usually out of bounds for visitors during the "quarantine" period, which begins a month before the presentation of the Budget. It seems now the "ban" has been extended for an unspecified period.

Unhelpful helpline

With the July-end deadline to file tax returns approaching, the tax department helpline has been getting frantic calls from taxpayers. But the Aayakar Sampark Kendra (a single-window system registering all taxpayer application/return) number seems to be stuck in a time warp and keeps asking callers to choose between Hindi and English to proceed further. No matter which language the caller chooses, the helpline refuses to "help". And if by mistake, a taxpayer calls the number late in the night or early in the morning, the automated voice response asks him or her to call between 8 am and 10 pm. The tax department might consider answering queries over email like they do in the US, where this facility is available throughout the year.

Why there is no rush for Jewar

The alternative to Delhi airport will be ready for operations by 2024, but it may still be long before the National Capital Region needs another airport

SURAJEET DAS GUPTA

TAKE TWO

On July 15, prospective bidders for the new greenfield airport in Jewar, in Uttar Pradesh, have been called for a pre-bid meeting to clarify their doubts. The airport, to be built in public-private partnership mode, is being positioned as an alternative for citizens in the National Capital Territory, including the neighbouring cities of Mathura, Meerut, Ghaziabad, Gautam Budh Nagar, among others, which have till now had just one choice for an airport — the Delhi airport with its three terminals, around 80 km from Jewar.

But with burgeoning traffic in Delhi and just three runways, it is already facing capacity constraints — especially during peak hours. In FY19, the airport handled around 70 million passengers.

The Noida International Airport Ltd (NIAL), which is overseeing the project, had initially pitched for completion of the airport by April 2023, based on the deadline suggested by Price Waterhouse Coopers (PwC), which conducted the techno-economic survey for the project. But most government officials now believe this deadline will have to be pushed to 2024 as acquisition of land is still a work in progress. Besides, the earlier deadline of having a financial closure of the project by 31 March 2019 is long gone. NIAL, however, is moving quickly. It wants to close the bids by November and award the project by January 2020.

The question which potential infrastructure players who are interested in bidding are grappling with is whether Jewar would be a viable business proposal in 2024. Many say that the airport should be built only after the large capacity increase being undertaken at the Delhi airport is absorbed. A top executive of an airport infrastructure company says: "There is no second guessing whether Delhi needs a second airport or not. But the issue is whether it should be operational by 2024 or at least three to five years later, when there is sufficient demand due to Delhi airport exhausting its expanded capacity too. Otherwise, the substantial investment made will remain idle. So what is the hurry?"

He has a point. The Delhi International Airport Limited (DIAL) has embarked upon a massive expansion to increase its capacity from 70 million passengers per annum to 130 million (both arrivals and departures together). And based on their submissions to the government, they say that this is enough to take care of the passenger traffic from Delhi and the adjoining areas till 2034. That is based on the fact that the annual passenger growth in the last five years in Delhi has been 10-11 per cent per annum, and it is expected to slow down as the passenger base increases.

So what is DIAL offering? According to sources, DIAL, which has started implementing the first phase of expansion, will see passenger capacity rise from 70 million to 100 million per annum by March 2021. The airport is putting up a fourth runway and expanding terminal ID, besides building a cross taxiway. This will increase the number of slots available for departure and arrival at peak times. In the next phase, a fourth terminal will be built, taking the capacity to 116 million passengers, and further to 130 million per annum after a few tweaks in operating procedures.

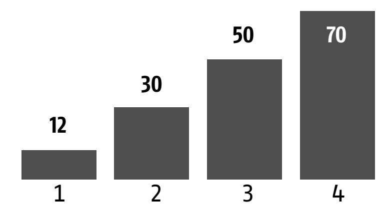
If this plan holds good then who does Jewar serve? Based on the Request for Proposal (RFP), the first phase of the Jewar airport would have a capacity of 12 million passengers per annum, going up to 70 million by 2039. The cost for the first phase, according to NIAL, is ₹4,588 crore.

PwC, which prepared the feasibility report on behalf of the authority, clearly thinks Jewar airport is viable. It expects that in the initial period the spillover traffic at peak hours in Delhi (because slots will not be available) will shift to Jewar and it will be able to garner 4.9 million passengers in the first year, going up to 14 million by 2029. It estimates that by 2029-30 the spillover traffic will pick up significantly as Delhi reaches capacity.

For a substantial number of passengers coming from the hinterland, PwC says, Jewar will be the closest airport. Based on their research of passenger profiles at the Delhi airport, currently 57 per cent of the passengers come from NCT of Delhi and 11 to 12 per cent are from the districts in Uttar Pradesh like Gautam Budh Nagar, Ghaziabad and Agra. Also, 18 per cent of the international travellers to Delhi visit Agra and 60 per cent of them want an international airport near to the destination. It also says that by 2029-30, the demand for air travel from the hinterland will hit 115 million per annum, and a large number of these passengers will go via Jewar.

PASSENGER FLOW

Jewar airport's passenger handling capacity (MPPA in phases)



MPPA: Million passengers per annum Source: PwC

Even airlines, especially the budget ones, see an opportunity in offering differential pricing to customers taking a flight from Jewar compared to Delhi during peak hours. But they admit they will require enough customers from the catchment area to provide them with a decent passenger load factor before they can decide to fly on specific routes.

What makes the debate interesting is that the airport is less than 150 kilometres away from Delhi. So DIAL, according to the rules, would get a limited first right of refusal to build the airport. In simple terms, it means that if the number that it quotes for revenue per passenger (bidding is based now on this formula rather than the older system of revenue share) is within 10 per cent of the highest bidder, it will be given a chance to match that bid.

If it wins, the question to ask is: How will it fit in with its expansion of Delhi, which is going full-on? If it doesn't win, what would be interesting to see is the strategy of a new player to make Jewar a worthwhile business model. Or, will both prefer to see the project take off commercially much later on?

ON THE JOB

Devil in the data

MAHESH VYAS

The first two major economic documents of the new government — the Economic Survey and the Union Budget — did not contain any significant new measures on jobs.

The Economic Survey made suggestions on restricting size-based benefits to infant micro, small and medium enterprises (MSMEs) and denying these to those MSMEs that do not grow even after years of such benefits. The suggestion is sensible but, it does not directly address the problem of jobs. Will infant MSMEs generate sufficient jobs to more than offset the loss of jobs caused by the possible shutting down of the dwarf MSMEs post benefits?

The Economic Survey is right in effectively saying that it does not make sense to perpetually subsidise small firms that fail to grow — the dwarfs. But, this is not a solution to the jobs problem we face. Possibly, this is not even proposed as a solution to the jobs problem. But, then there are no solutions from the government on the jobs front. There weren't any direct suggestions in the Bharatiya Janata Party's (BJP's) election manifesto. There were none in the Budget presentations on February 1 and there are none in the most recent Economic Survey and the Budget presented on July 5.

The finance minister's speech talks about preparing the youth of the country to meet demand for skilled workers in a world that is likely to face labour shortages. But, it does not talk about jobs, directly.

The government has released the Periodic Labour Force Survey results for 2017-18 and also for urban India in the first three quarters of 2018-19. Yet, there is no discussion about these in any of the economic documents since their release.

This stoic silence is intriguing.

The monetary stance has turned accommodative. Implicitly, the greater preference for growth compared to inflation control is a positive for employment generation. Monetary policy is not known to take unemployment rates explicitly into consideration. Perhaps, it's time it did so.

What do the fiscal numbers tell us? An acceleration in the rate of increase in government spending would be a positive for employment generation. The finance minister's speech did not betray any strategic position in the matter. Besides, the speech was almost bereft of any quantitative data. It did not state what the government would spend or what would the fiscal deficit be. This was a first.

Beyond the speech are the detailed Budget papers where the data can be found. But, calculating the growth in central government spending has become more confounding than it usually is. This is because the budget papers do not recognise the fiscal statistics for 2018-19 released by Comptroller and Auditor General of India (CAG). The CAG released these estimates in May 2019, more than three months after the Interim Budget had presented data for 2018-19 on February 1, 2019. Yet, the Budget presented in July does not recognise these. It continues to use the data it presented on February 1 although it did have more up-to-date numbers from the CAG which were even used in the Economic Survey.

This is important because the difference between the numbers presented in the budget and those provided by the CAG is very big. The udget estimate of total central government expenditure in 2018-19 was ₹24.42 trillion. The revised estimates presented by the then finance minister, Piyush Goyal, was higher, at ₹24.57 trillion. But, on May 31, 2019, the CAG released the fiscal estimates for the year ended earlier in March 2019. This placed the central government expenditure much lower at ₹23.11 trillion. The difference between the estimates given by the government in February and those released by its official agency in May is a significant ₹1.5 trillion. However, the Finance Minister, Nirmala Sitharaman, does not recognise this fall in central government spending in 2018-19 compared to its revised estimates. The Budget papers presented by her stick to the earlier revised estimate of ₹24.57 trillion.

This matters because we need to interpret the ₹27.86 trillion that the government says it will spend in 2019-20. Should we compare these to the ₹24.57 trillion that the finance minister says were spent in 2018-19 or should we compare these to the ₹23.11 trillion that the CAG says were spent in the same year.

The former implies a growth of 13.4 per cent. But, the latter implies a growth of 20.6 per cent. The former would be close to business as usual. But, the latter implies a big increase in government spending of a scale not seen since 2008-09. This was when the government responded to a global financial crisis with a 24 per cent increase in central government spending. Does the government see such a big crisis today? Unlikely. But, the devil in the data must be exorcised

The author is the MD & CEO of CMIE

LETTERS

Karnataka crisis

The fast-paced political developments in Karnataka are not quite unexpected. They are a fallout, if not a corollary, of the Bharatiya Janata Party's (BJP's) return to power at the Centre and its better-than-expected performance in the Lok Sabha election in the state. At a deeper level, they bear out the fact that little divides political leaders in our country. Self-interest is the driving factor and the name of the game. Opportunism is a "virtue" if it serves their self-interest. Deserting a party on whose symbol one won an election or defecting to (or playing into the hands of) another party is not considered something unethical or shameful.

The BJP denies any hand in the resignation of nine Congress and three Janata Dal (Secular) [JD(S)] MLAs from the Assembly to avoid the charge of horse-trading. But it is unbelievable that these MLAs would have decided to resign without inducements from the party. Speculation is now rife that more from the Congress and JD(S) are likely to resign to pave the way for the formation of a BJP government.

G.David Milton Maruthancode

No vision, no theme

The Budget 2019 makes us look askance at a government which has been voted in for the second time with an even bigger mandate. The presentation, instead, was of a hesitant coalition government. There was no overarching theme for Modi 2.0 nor was there a delineation of persisting core concerns of the economy A virtue had been made of modesty. At the least, long-running problems of indifferent growth and fresh job creation ought to have had mention. Perhaps, the government has given up on both.

Consumption is no longer fuelled by the lower income segment which is losing its purchasing power. The middle one keeps away from white goods due to uncertainties about the

future and the upper strata is awaiting better times. Spending does not create wealth, production does.

Here was an opportunity to set direction towards these by promoting a healthy pool of savings to add wealth and jobs. An astute mix in policy approach that channels funds to the lower strata, enables the next to save and calibrates tax incentives for the job-creating capital is important. Tax sops for an ailing housing sector may help reduce inventory but not scale up accretion of jobs. The Budget was one of listing administrative orders for ease of compliance and was nowhere near laying out a long-range vision or even a contemporary theme.

R Narayanan Navi Mumbai

Name-changing spree

On July 26, 2018, the West Bengal Assembly had passed a resolution unanimously to change the name of the state as Bangla. In 2011, a suggestion had come to change the name of the state as Paschimbanga. But the suggestion was turned down by the UPA government. In 2016, it was reportedly proposed to rename the state as Bengal in English, Bangla in Bengali and Bangal in Hindi. Finally, the state insisted to change the name as Bangla which was turned down by the Centre recently.

The NDA government is justified in rejecting the proposal as the name is "part and parcel" of Bangladesh. There have been many changes of names of Indian cities. But no government in India has thought of changing the name of India as Bharat. It will be nice to rename India as Bharat.

K V Seetharamaiah Hassan

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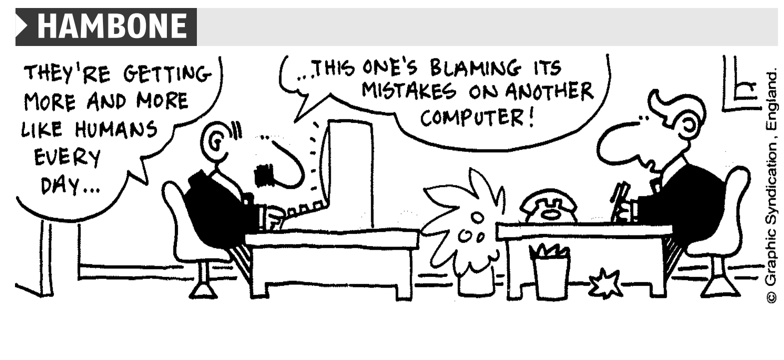
HAMBONE



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Taxing the super-rich

India needs a predictable, stable, and moderate rate of taxation

Finance Minister Nirmala Sitharaman struck the right chord in the very beginning of her Budget speech when she stated that the government does not look down upon legitimate profit earning. This was a welcome remark. Businesses in India have been marred by licence raj for far too long and making money has not always been appreciated. To her credit, Ms Sitharaman extended the benefit of the lower corporate tax to all but 0.7 per cent of companies, though the expectation was that the benefit will flow to all.

But the feel-good effect of the announcement did not last long, because the minister proposed an increase in the surcharge for taxpayers earning more than ₹2 crore. According to the proposal, the effective tax rate for individuals with a taxable income of ₹2-5 crore and above ₹5 crore will go up by about 3 and 7 percentage points, respectively. While the proposal will affect only a small minority of taxpayers, the idea is flawed at multiple levels and should have been avoided. It is estimated to improve income tax collection by less than ₹3,000 crore.

At a broader level, this goes against the basic idea of simplifying the tax structure. Although various kinds of cess and surcharge have been imposed in the past, this Budget has taken it to another level. Clearly, a reversal will be difficult for political reasons. It is not clear as to why the government intends to undo a system that has worked well. Experience shows that collection tends to increase when rates are lower.

It is well accepted that the government needs more revenue to increase capital expenditure and fulfil its social obligations. Therefore, in order to increase collection, the focus should be on compliance and broadening the tax base. The idea should be to encourage people to pay taxes and improve the tax administration to detect noncompliance. While there has been some progress on the compliance and administration part, regular revisions in exemptions and rebates limit the possibility of meaningfully increasing the base. For instance, the Interim Budget gave a full tax rebate to individuals with a taxable income up to ₹5 lakh. The revenue impact of this was more than ₹18,000 crore.

What is desirable is that instead of depending on large payouts from a small number of taxpayers, India should move to a system where a large number of people pay a moderate rate of tax. Again, history shows that a higher rate of taxation results in evasion. It is possible that the super-rich section of taxpayers with resources at their command would look for ways to reduce their tax liability. It would be interesting to see the actual resource mobilisation on account of the new surcharge.

Further, if the government believes that the rich should be contributing more, it should work on revising tax slabs. This will keep the structure simple and transparent, and the states will also get their fair share. In fact, the government has made the job of the panel working on a new direct tax code more difficult. Hopefully, the panel will recommend simplifying direct taxes, and the government will find it convincing. In order to grow at higher rates, it is imperative that India has a predictable, stable, and moderate rate of taxation.

A push too hard

Digital payment mandates should be avoided

Budget 2019-20 continued the government's push towards digitising the Indian economy, particularly digital payments. To further corral the remaining cash-based sections of the economy, Finance Minister Nirmala Sitharaman said withdrawals from a particular bank account totalling more than ₹1 crore in a year would require tax to be deducted at source. There can be few objections to this notion — certainly, it is far less draconian than other measures that were being proposed at the time of demonetisation.

However, other aspects of the Budget's policy outline for digital payments should be re-examined. The finance minister pointed out that "low-cost digital modes of payment such as BHIM UPI, UPI-QR Code, Aadhaar Pay, certain Debit cards, NEFT, RTGS" could be used to "promote a less-cash economy" and, therefore, proposed that "business establishments with [an] annual turnover [of] more than ₹50 crore shall offer such low-cost digital modes of payment to their customers and no charges or Merchant Discount Rate (MDR) shall be imposed on customers as well as merchants".

This essentially forces medium-sized shops to offer this set of digital payment mechanisms to their customers. First of all, the lobbying potential under such mandates is enormous and should as a matter of principle be avoided. But more importantly, it should be left to the shopkeepers, the payment companies, and the financial structure — particularly banks — to make decisions based on their commercial interest. Only then will a sustainable digital payments architecture evolve in India. A payments architecture that is based on government mandates and regulations will be inefficient and unremunerative. The only sustainable digital financial architecture will be one in which each step of the chain — from customers and merchants to banks and companies — will share in monetary gains from greater efficiency. This requires voluntary rather than forced switching to digital modes at every step.

It could be argued that there are significant external benefits to the government stepping in to speed up the transition to a less-cash economy, and that once such a transition is completed, it will pay for itself. Such arguments, particularly after the demonetisation experiment, should be viewed with caution. At the very least, the costs of any such mandates should also be scrutinised.

Essentially, if the government perceives that there are broader benefits to a move towards a less-cash economy, then economic logic dictates that it should bear the costs itself. The elimination of the MDR, a major source of revenue from some digital payments, flies in the face of this logic. In this case, the finance minister said that the Reserve Bank of India and the banks would "absorb these costs from the savings that will accrue to them on account of handling less cash as people move to these digital modes of payment". If those savings existed, then banks could surely come to their own decisions on the move and should be allowed to do so. Therefore, the chances are that the savings are, in fact, too far in the future or accrue to the economy more generally. In that case, it is the government that should find some way of bearing the cost of its policy priorities, rather than pushing them on to banks or merchants.

ILLUSTRATION: BINAY SINHA

The illusion of size

Thinking India can induce enough private investment just because of the size of its market is a big mistake

The Economic Survey, which is by tradition presented the day before the Union Budget, is frequently more forward-looking and economically sensible than the actual Budget. Naturally: The former is written by economists and the latter by bureaucrats, even if both want to please the same politicians. There's also the small matter of the Budget having to live in the real world, while Surveys can live — as many economists do — in the world of the ideal.

Even so, the differences between this Budget and the Survey in their broad approach are startling. And worrying, because they throw into sharp relief the false assumptions that have taken hold within the corridors of power in New Delhi. Both the Survey and the Budget sought to revive investment as a major immediate priority. But the big divergence is in terms of strategy: The Survey correctly argued that exports growth is indispensable to any approach that puts investment first.

Investment can best be fed by a secular increase in the share of savings in the economy. But that leads to a conflict: Private sector investment will not take off without the promise of demand, and increasing savings conflicts with the aim of increasing consumption demand domestically. Here's what the Survey says: "With the share of consumption in GDP constrained by the high level of savings, domestic consumption can, at best, act as a force-multiplier when high income growth feeds consumption. So, where would the final demand for the large capacities created by high investment come from? The answer is exports. This is why an aggressive export strategy must be a part of any investment-driven growth model."

This analysis cannot be faulted. In fact, it broadly fits with the experience of almost every major economy that has successfully graduated to upper-middle-income status or beyond. India's recent economic history demonstrates the difficulties of reviving investment when domestic consumption demand is the only justification for new investment. Even a consumption boom — driven in part by low fuel prices — has not solved the over-capacity problem faced by much of the private sector, which in turn has retarded investment growth. Exports were static in real terms since 2014, and growth recently has been halting, tentative, and easily reversed. As a consequence, sustainable growth has remained elusive. It will remain so as long as we seek a consumption-driven growth strategy.

POLICY RULES

MIHIR S SHARMA

The Budget has taken a different approach from the Survey. It has certainly attempted to fix the supply side when it comes to investment — for example, it includes measures intended to reduce the appropriation of household savings by the government for its own revenue expenditure. But there is no change in strategy on the demand side. India is to remain focused on creating and protecting domestic demand as an inducement for investors. This is an error of historic magnitude.

What would draw investment to India? The possibility that it is a good place to produce not just for a not-yet-mature domestic market, but also for the world. Global supply chains are in flux, thanks to tensions between the United States and the People's Republic of China, and India currently has less than two per cent of world trade: This is the moment to cash in. Even if the world trade is growing slowly, a labour-surplus country with such a small proportion of world trade compared to its population and resources should be easily able to grow its exports by cutting into the share of other economies — notably China's.

Yet, if such investment is to take off, it needs a stable policy environment and a sense that it can effectively be part of global supply chains. From the government's point of view, the main constraint was India's problematic infrastructure. This is only partially correct. As the Survey also argues, policy stability is equally important. And so is competitiveness. How does the Budget address these two constraints?

It does not address them at all. It continues to hand out step-motherly treatment to large companies, which are excluded from the 25 per cent base rate of corporate income tax. These are the companies that are most competitive, productive, and which create the world-class jobs we need. If we need large-scale job creation, we need large-scale investment from the largest companies. A disproportionately high rate of tax targeted at precisely these companies renders locating in India for exports uncompetitive. What would help is labour law reform — as the Survey points out, it has helped states such as Rajasthan. But although the Budget mentions once again the rationalisation of labour law into four codes, a commitment to flexible labour markets at the national level continues to be elusive.

When it comes to policy certainty, the Budget makes things worse. In global supply chains, tariff stability is crucial — you don't want to invest somewhere which has the reputation of fiddling around with tariffs that might at any moment make it difficult for you to manage your margins or to meet your deadlines. A simple, competitive rate of taxation and tariffing is what is needed. But this Budget continues the trend, visible in previous Budgets under the Modi government, of arbitrary changes to import duties. Worse, it specifies that the purpose of these changes is the protection of the domestic market. As a signal to greenfield investors, this could not be worse. It is clear that India is interested only in its own consumers, and not in producing for the world. This fits into an entire set of recent policies, which target foreign investors across the board — whether in e-commerce, like Amazon, or in payments, like the credit card majors. Given this aggressive and protectionist attitude, it is odd that the Budget speech also included an invitation to "global companies through transparent competitive bidding to set up mega-manufacturing plants in sunrise and advanced technology areas". The wording is puzzling in the extreme. Bidding over which asset? Over subsidies? Free land? This is typical. First make the economy so uncompetitive that nobody wants to come without inducements. Then come up with inducements, so that power rests with politicians and bureaucrats.

India needs an investment revival not just in the short term but in the long term. It needs to render its over-capacity problem irrelevant. For that, it needs to look beyond its own shores. Don't be blinded by the number of our consumers —that is an illusion, because each consumer is also someone who needs employment. A big country trying to develop has the same constraints as a small country: Its own demand is rarely enough to induce the private investment needed. Just like anywhere else, India needs to export. The economists, and the Survey, remember that. The politicians, and the Budget, don't seem to care.

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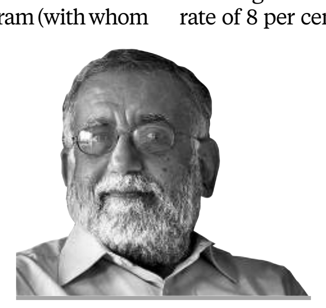
Devaluing Budgets

While transiting resplendently from the passé briefcase to the bright, trendy *bahi khata* for carrying her Budget papers, the new Finance Minister Nirmala Sitharaman decided to give the short shrift to what must be at the heart of the Budget. Neither the two parts of her speech nor the explanatory memorandum contain statements of government income and expenditure by major heads; there is only a passing reference to the deficit. Some learned commentators have hailed this as a welcome change, but I must concur with the observation of the former finance minister P Chidambaram (with whom I often disagree): "Has there ever been a Budget speech that does not disclose total revenue, total expenditure, fiscal deficit, revenue deficit?" I do so not because I am an "accounting economist," but because Article 112 of the Constitution expressly mandates the government of the day to lay "before both the Houses of Parliament a statement of the estimated receipts and expenditure of the Government of India." The expenditures include all those charged to the Consolidated Fund of India, both constitutionally required and others.



ET CETERA

SHREEKANT SAMBRANI

The Budget document has these figures, but one has to trawl through it to find them. That gives rise to the suspicion that this is a deliberate exercise, because only the patient few would bother to do so and talk about the devil in these details. The rest will be content with ooh and aah and call the Budget a vision thing, not an accounting exercise. This has already happened, but we must ask whether it bodes well for a functioning, accountable democratic system of governance. More on this later, but first some salient critiques of what is presented as the Budget.

The Budget and the Economic Survey that precedes it are logically and correctly supposed to be conjoined twins. The latter is expected to lay out strategies in a what-if manner and the former is an action plan based on it. In the present instance, that connection is blurred and several mismatches are visible. The Survey takes 2024-25 as the target year for the $5 trillion economy, while Ms Sitharaman restricts herself to saying "it is well within our capacity to reach $5 trillion in the next few years" (para 6). That is a statement of a possibility, not a target. Her projections are based on a real growth rate of 8 per cent, while the Survey uses 7 per cent. That single percentage point could make a world of difference to the projected figures of revenues and deficits, but then discrepancies could always be rationalised ex post! The Survey mentions private investment and exports as growth engines, but the Budget does not provide any kick-start for investments and emphasises import reduction through customs barriers.

The measures the Budget highlights — the Reserve Bank of India (RBI) to control housing finance institutions, guarantees for financially sound non-banking finance companies, interchangeable use of Aadhaar and PAN for tax returns, diluting the definition of public sector enterprises and government borrowing abroad, among others — are touted as reforms, but these administrative steps could have been taken any time. Their impact on reviving the stalled economy would be at best marginal. More seriously, the Budget revises the revenue estimate downward by a whopping ₹1.6 trillion from that of the Interim Budget before the election and yet manages to project a deficit of 3.3 per cent, down from 3.4 per cent earlier. The lowering of revenue estimate is an implicit admission of the slowdown, and needs to be explained and analysed. The Budget just blandly mentions it. The deficit reduction could be due to the higher disinvestment (most probably through selling government equity to the richer public sector firms), higher RBI dividend and as has been the custom, making certain expenses off-budget. The more grievous consequence would be further shrinking of already lower investments and outlays in critical areas such as health and education. Even in agriculture, the government's acknowledged primary concern, the hyped increase of about ₹63,000 crore (92 per cent over the previous year) is due mostly to the ₹55,000 crore higher allocation for the PM-Kisan income transfer, leaving only token amounts for research and investments. Clearly, the government that talks of boosting farm incomes walks more comfortably with welfare measures.

For years now, Budget deliberations in Parliament and in public forums have been desultory. The Survey now comes just a day, not a week, before the Budget. Reactions are predictable and ritualistic: Government spokespersons, from the prime minister down, call the Budget a judicious mix of growth and social justice. The opposition terms it anti-people. Assembled business leaders carefully hedge their bets and give the Budget a safe score of 7 out of 10. But for the numbers in the Budget and names of finance ministers, we could just as well watch previous years' reruns!

What is remarkable about Budget 2019-20 is that it does not even make the pretence to be the financial statement the Constitution enjoins it to be. The Modi 2.0 government, flush with its famous victory at the hustings, knows that it can pass anything it wants in the house that matters, the Lok Sabha. That is a travesty of accountability, tantamount to maximum government, governance be damned.

The writer is an economist

Fighting in the shadows

BOOK REVIEW

AJAI SHUKLA

Several authors have analysed the shifting templates of modern warfare, but few have the credentials that Sean McFate brings to his writing. He has served as a paratrooper in the United States army's elite 82nd Airborne Division. He then went on to become a mercenary soldier in Africa, with one of the shadowy "private contractors" that rent out armed forces, no questions asked. Adding academic rigour to that battlefield perspective, he is currently professor of strategy at the National Defense University and Georgetown University, both in Washington DC, USA. This is his second non-fiction book on war, after his 2017 work, *The Modern Mercenary*.

In this book, McFate takes a cold-eyed look at the changing face of conflict over the last half century. He argues that war and force engagements have changed form dramatically, as the world has entered an age of "durable disorder" characterised by China's rise, Russia's resurgence, America's retreat, the advance of global terrorism, the emergence of international criminal syndicates, wealthy and influential multinational corporations with resources larger than many countries and well-armed mercenary organisations that provide the wherewithal for countries, organisations and individuals to meddle deniably in hotspots anywhere. Instead of declared wars with tanks rolling across international borders, we have "shadow wars" such as Russia's annexation of Ukraine's Crimea. McFate recounts how, with President Vladimir Putin feigning innocence, Moscow occupied parts of Ukraine, such as Donetsk, with its so-called "little green men" (military troops without uniform), elite Spetsnaz Special Forces, mercenaries and proxy militias that Russian leaders passed off as Ukrainian "self defence groups". Russia's denial of any links with this ghost occupation force made Western powers chary of intervening in a situation where even the basic facts remained contested. By the time Russia's involvement became clear, the occupation was a *fait accompli*. McFate tellingly points out that, in the 1950s and 1960s, Russia crushed anti-Moscow protests in Hungary and Czechoslovakia under their tank treads. It could have done the same in Ukraine, but chose a "shadow war" instead, given that even implausible deniability was better than the opprobrium that would attend an old-style blitzkrieg invasion.

None of this is actually new, says McFate. The world is merely returning to the pre-Westphalian era when, in conflicts like the "30 Years War", mercenary armies, owing shifting allegiances to whichever monarch, aristocrat or religious leader was paying them, laid waste to much of Europe, pillaging and raping indiscriminately. In 1648, the Treaty of Westphalia ended this carnage by recognising the monopoly of states on armed force, a consensus that largely held through the 20th century. But now force is again being wielded by non-state entities — such as religious groups, local militias, mercenary forces and corporations — even as the forms of force change and evolve.

In 10 successive chapters, the book describes 10 rules that govern modern warfare. "Rule 1: Conventional War is Dead", postulates the demise of the Westphalian order and World War II style conventional war, even as contemporary generals prepare, as generals have through the ages, to fight the last war. McFate points out that, of 50 armed conflicts worldwide in 2015, only one was a conventional war. Yet orthodoxy prevails in planners' minds. "Rule 2: Technology Will Not Save Us", points out that nuclear submarines, aircraft carriers and the F-35 stealth fighter ("the most expensive weapon in history") are practically unusable against contemporary threats such as terrorist strikes, cyber attacks, Russia's aggression in Crimea or China's creeping acquisition of the South China Sea. Yet, most of America's enormous defence budget goes on those, with relatively few resources spent on usable forces, such as Special Force units, which remain underfunded and in insufficient numbers.

One of the book's most provocative arguments is in "Chapter 7: New Types of World Powers Will Rule". While the concentration of wealth in the hands of the top one per cent is well known, McFate argues that hyper-wealthy corporations like Walmart (which he wrongly says has a larger economy than India) now have the option of hiring mercenary forces to protect their interests. Why would companies like ExxonMobil and Shell remain tethered to corrupt governments such as Nigeria's, when they can better protect their interests through hiring mercenary groups? Similarly, organised crime syndicates, and even terrorist groups, can today boost their lethality by hiring mercenaries for strong-arm operations. An Uzbekistan-based mercenary group, Malhama Tactical, already specialises in providing armed fighters to Islamist jihadi groups. Fascinatingly, McFate returns to history to demonstrate that none of this is new. In the 17th and 18th centuries, the British East India Company set up its own private army to conquer, subjugate and plunder an entire sub-continent. One of the first Indian words to enter spoken English was "loot".

McFate concludes by urging thinkers to shake off their "strategic atrophy", since "conventional war thinking is killing us." In the current information age, warfare will move further into the shadows, he predicts, where the arbiter of victory will be strategic subversion, not battlefield victory. Future wars will not begin and end, but will hibernate and smoulder, occasionally bursting into active fighting. This trend is already evident from the number of "neither war, nor peace" situations around the world. McFate has clearly written for a western readership, but the Indian reader can hardly miss how much of this applies directly to our own security challenges. This book should find a place on the bookshelves of all our strategists.

THE NEW RULES OF WAR: Victory in the Age of Durable Disorder
Sean McFate
HarperCollins, 2019
318 pages; ₹1,699 (on Amazon)