Reimagining the humble spud

A lot of work is happening around the globe to improve the "profile" of potato

FARM VIEW

SURINDER SUD

Potato scientists are reworking the nutritional profile of this third largest consumed food, next to rice and wheat, to place it in the "health foods" category. For this, they are trying to enhance potato's innate content of antioxidants (anti-cancerous) and anti-diabetic ingredients. Efforts are also on to promote the hi-tech systems of seed production through aeroponic (soil-less) and tissue culture (test tube) techniques. This would help save time and cost of producing disease-free and good quality seeding material to mitigate the shortage of certified potato seeds.

Potato pundits, in any case, do not view it as an unhealthy food. Shimla-based Central Potato Research Institute (CPRI) director S K.Chakrabarti dismisses the notion that potato intake heightens the risk of weight gain. For, potato is very low in fat content, just 0.1 per cent. It also contains enzymes and other ingredients which improve insulin secretion in human beings to take care of its high carbohydrates content. The protein in potato, even if merely around 2.5 per cent on fresh weight basis, has a very high biological value. All amino acids are present in right proportion with a relatively higher share of vital lysine.

In this respect, potato protein is rated higher than the proteins in products of animal origin, such as milk and meat. Moreover, potato is rich in vitamins C and B and several useful minerals. In fact, the seafarers of olden days ate potato to avoid scurvy, a Vitamin C-deficiency disease that caused swelling and bleeding of gums and reopened previously healed wounds.

The anti-diabetic compounds and antioxidants found in potato, which are now sought to be augmented through bio-fortification, are believed to play a role in slowing down or preventing diseases ascribed to ageing. An increase in the anti-diabetics ingredients of potato, such as biguanide and metformin, is expected to improve the insulin production to combat type-II diabetes. In laboratory studies, diets containing powder of potatoes of Kufri Surya variety have been found to lower the blood sugar levels of diabetic rats.

Antioxidants, on the other hand, are the chemicals which subdue cell-damaging "free radicals" to impede and possibly thwart the development of many dreaded maladies, including cancer. Main anti-oxidants found in potato are phenolics, anthocyanins, flavonoids and carotenoids. The CPRI is endeavouring to develop potato strains having higher content of anti-oxidants like anthocyanins and carotenoids. These potatoes would have coloured tubers. In fact one such anti-oxidant-rich dark purple-coloured potato variety, Kufri Neelkanth, has already been released about a year ago for cultivation in the northern plains. It yields, on an average, about 38 to 40 tonnes of potato tubers per hectare, against the present national average of 23 to 24 tonnes. More such anti-oxidants-dense coloured varieties of potato having cancer-inhibiting traits are likely to be released in the next few years.

The technology for producing healthy potato seeding material through aeroponic system, which has already been passed on by the CPRI to about 18 entrepreneurs, would expedite multiplication of seeds of potato, including those of the specialty potatoes, to promote their cultivation. In fact, the seeds multiplied through vegetative route (read clones) with the help of these techniques would facilitate raising the country's overall potato production to meet the rapidly growing demand.

These and other scientific breakthroughs in potato cultivation achieved by potato researchers in India and abroad are slated to be highlighted in the forthcoming Global Potato Conclave 2020 scheduled to be held at Gandhinagar, Gujarat, from January 28 to 31. This conclave is being organised by the Indian Potato Association in collaboration with the Indian Council of Agricultural Research, the CPRI and the Lima (Peru)-based International Potato Center. The Netherlands will be the exclusive country partner. The three major components of this mega event —Potato Conference, Agri-Expo and Potato Field Day — will enable the scientists, traders, processors, value-chain managers and potato growers to interact with each other. Apart from learning about the latest developments in the potato sector, these stakeholders would get an opportunity to strike business deals as well.

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CHINESE WHISPERS

Thoughts on policing

On the day Uttar Pradesh Chief Minister Adityanath (*pictured*) gleefully announced that the state cabinet had approved the proposal to introduce the office of police commissioner in Lucknow and Noida, Bahujan Samaj Party (BSP) President Mayawati lost no time in taking a potshot at the government. In a Twitter post, she observed merely making changes in the police hierarchy at a few places would not improve law and order, but tough action was needed against criminal elements by rising above the political divide. In his press interaction after chairing the state cabinet meeting on Monday, Adityanath had blamed the previous regimes in UP for failing to adopt the police commissioner model owing to the lack of "political will".

Set to get rewards!

Some senior leaders of the Madhya Pradesh Congress may soon get a new year gift. The party is set to appoint new chairpersons to boards and corporations in the state. Sources say those who got the ticket to contest in the Lok Sabha and Assembly elections will have to wait this time because the party will not consider them for these appointments. Instead, it will give preference to those who "struggled for it for a decade and a half when it was exiled from the corridors of power". Those to be rewarded may include K K Mishra, Shobha Oza, Pankaj Chaturvedi, and Kavita Pandey. However, the state and central leaderships are wary of factionalism, which may worsen after the appointments. Party General Secretary Dipak Babaria recently met Chief Minister Kamal Nath and asked him to maintain a better balance between the All India Congress Committee and the Pradesh Congress Committee

A bureaucrat's last laugh

Bureaucrats joining private companies is not new. But tainted ones joining a debt-ridden firm and turning it around is surprising and, if one may add, a quasi-vindication of the gamble. An IAS officer who had graft and fraud charges against him resigned with the regime change in the state to whose cadre he belonged. He soon joined an infrastructure company before the new government opened any cases to implicate him. The company also concluded its two-year-long efforts to find a suitor for its troubled projects at the same time and took him on board despite the taint. Maybe here it was a bit of "prior experience and contacts" that counted. No one's judging, said a competitor, but clearly the company and the ex-bureaucrat had the last laugh.

Missing the gas for the coal

Relaxing market norms for private mining is unlikely to attract investment; the government would do better to create a market for natural gas

SUBHOMOY BHATTACHARJEE

The government decision to open up coal for commercial mining is an excellent decision — only, it has just missed the bus. It has finally set up a market for the fuel when global mining investors are unlikely to underwrite coal mining. India, meanwhile, is delaying the creation of a market for natural gas, which is the obvious switchover fuel on the road to renewable energy. The big news flow from the global energy economy is about investments in gas and in hydrogen but we are missing those.

These are the reasons why India's plan to allow commercial coal mining has not created any major ripples. The government last week allowed any India-registered company to bid and develop coal blocks. The Minerals Law (Amendment) Ordinance 2020 amends three Acts; Mines and Minerals (Development and Regulation) Act, 1957, the Coal Mines (Special Provisions) Act or CMSP Act, 2015, and Mines and Minerals Development Act, 1957. The CMSP Act will also allow any company to sell the coal it produces as a commercial product in the market rather than to specified end-users.

TAKE TWO

ANALYSIS BEHIND THE HEADLINES

The cabinet decision wipes off all the impact of the Coal Mines (Nationalisation) Act of 1972. In the 47 years since then, there has been abortive attempts to overturn this restrictive regime. The most famous of those was the one by Narasimha Rao government which instead settled for captive use-based coal mining to begin India's coal rush. The walk back has finally happened.

The economy has imported 235.24 million tonnes of coal in FY19, up 24 per cent in two years. Domestic coal production in FY20 will most certainly fall short of the level of 730.35 million tonnes recorded in FY19 (it is 498.5 million tonnes in nine months till December). Despite India's growth slowdown, domestic coal supply is short. It still has to meet about 60 per cent of India's electricity demand through this decade.

This means India will mine even more coal in this decade. The estimates for 2030 paint a generous range of 1.3 to 1.9 billion tonnes. The problem is this cannot be met solely through current production lines. CIL's production plans show it will mine about 925 million tonnes by then. Singareni Collieries Company Limited (SCCL) and the captive miners can produce another 500 million tonnes. Import of coking coal to feed steel plants will continue since India's reserves are almost exhausted.

So even though India could do with more coal mining, the room for commercial coal miners is restricted — unless they take over CIL mines or those of captive coal miners. Both are possible. The cost of mining coal for CIL has risen sharply. Its two largest subsidiaries, Mahanadi Coalfields and South Eastern Coalfields, are producing less coal for each tonne of waste they dig up. "With increasing cost of production and lowering of grade, the competitiveness of coal would get increasingly constrained. This does not take into account the increase in capital cost due to revised land acquisition policy and overall inflation. Compared to alternative sources, particularly solar, coal could be increasingly disadvantaged," CIL's Coal Vision document notes.

India will mine even more coal in this decade. The estimates for 2030 paint a generous range of 1.3 to 1.9 billion tonnes. The problem is this cannot be met solely through current production lines

Although commercial coal miners could well improve the productivity of the mines, the cost of coal extracted will still rise. Due to generous government policies over decades and the sunk depreciation costs, CIL and SCCL are able to mine coal at an average cost of ₹1,000 per tonne. New companies to generate any level of efficiency will have to make capital investments and this would raise the cost of coal. They will also need to raise costs because the auction formula for coal mines — the ascending forward method — means there shall be a floor price and companies will have to bid above this price. It shoots up the price of the coal block, which is why most coal blocks beyond the first 75 that were auctioned have not got any response. So the best option for commercial coal miners will be to buy the existing stock of mines from the original owners.

Except, even for this route there are few takers globally. Of the top ten largest coal miners by market cap, three are Chinese companies — China Shenhua Energy Company, Shaanxi Coal and China Coal Energy. The Indian government will be leery about letting them in. Among the rest, Wesfarmers of Australia exited coal mining in 2018. The coal business of Peabody, BHP Group and others is increasingly looking fraught.

Few banks abroad are willing to lend money to mine new coal projects. The league of insurance companies willing to underwrite fresh projects is also thinning sharply. The Adani group, for instance, had to use its own money to finance the Carmichael mines in Australia and the insurance cover is still being negotiated, thanks to pressure from environmental groups. CIL and even private miners had the luxury of Indian banks and insurance companies to finance them. Where will the miners abroad get the financial space?

Among the rare ones that could take the plunge is Vedanta. Company chairman Anil Agarwal has often chafed at the slow pace at which India has opened up its mining sector. But when bidders are so few, the government runs the risk of having to offer sweeteners, which is a dangerous path to follow — after all, it created the coal scam in the early 2000s.

Given the financial risks of such a policy, the Union cabinet would have done better to have take a more sympathetic view of expansion of natural gas business in India. We are still debating the details of an Indian spot market for natural gas, which could soften the impact of high costs of imported gas, though the benefits are clear. The International Energy Agency correctly says India's natural gas pricing policy has reduced incentives for producers to raise supplies. Linking it to goods and services tax en route to setting up a national-level market helps India's quest to make its climate bill lower. India's gas market can serve neighbours in South Asia too all of whom have massive demands for energy for their rising populations. Most important, a liquid market for natural gas will keep prices under check, saving India's forex reserves and building up energy security.

ON THE JOB

An ominous confluence

The sharp fall in net fixed assets growth is bound to have an impact on the ability of the corporate sector to increase employment

MAHESH VYAS

Medium and large companies did not announce layoffs in the aftermath of demonetisation. The huge liquidity shock, the breaking down of supply chain in some sectors — particularly agriculture — the disruption of business in other sectors — particularly construction — the confusion caused by changing rules of conversion and the myriad uncertainties, none transmitted into announcements of laying off of labour by the relatively larger enterprises.

Most considered demonetisation to be a temporary shock of a couple of quarters. And that business would return to normal soon.

The shock of demonetisation was felt largely in the informal sectors, which have mostly been beyond the pale of mainstream commentators. The impact of demonetisation, measured by comparing labour statistics four months before and four months since the November 2016, was a big fall in labour's participation in the labour markets. This was essentially a fall among young men and women, particularly young women. But its immediate impact on employment was relatively small. While the labour force is estimated to have fallen by 15 million, from 447 million to 432 million; employment is estimated to have fallen by a much smaller number, 4 million, from 410 million to 406 million.

This fall in labour force and employment is seen in the Consumer Pyramids Household Survey in the monthly estimates just before and after the November 2016 demonetisation. But the nearly one per cent fall in employment is not reflected in the Annual Reports of listed companies. These showed a 2.56 per cent increase in employment in 2016-17. Large- and medium-sized companies did not suffer a contraction in employment when the economy as a whole did witness this contraction, implying that the contraction in employment was entirely in the unorganised sectors.

The unorganised sectors suffered again with the introduction of the goods and services tax (GST) that came quick on the heels of demonetisation and made smaller business enterprises that survived almost entirely on tax evasion, unviable. It made the business of those who could not afford the compliance cost of GST unviable as well. Their loss was the gain of the large companies and so while the introduction of GST did lead to job losses, it was no reason for the larger business enterprises to announce layoffs.

The calendar year 2018 bore the combined brunt of demonetisation and GST. Employment fell by a further 5 million — from 406 million in 2017 to 401 million in 2018. However, the larger, listed companies reported a 4.73 per cent increase in employment. This was expected because the GST helped the larger and more compliant companies takeover the market shares vacated by the small enterprises.

It is therefore quite likely that the brunt of the shocks of demonetisation and GST and the consequent economic slowdown thus far since 2017 has been borne by the unorganised sectors.

But, the organised sector is now facing its own challenges. At a macro-level, the Indian corporate sector has stopped investing into new capacities for all practical purposes. In the year ended March 2019, net fixed assets of the Indian corporate sector grew by a meagre 5.3 per cent. In better times, net fixed assets grew by 16-17 per cent in a year and even peaked at 23 per cent in 2008-09. The sharp fall in net fixed assets growth is bound to have an impact on the ability of the corporate sector to increase employment.

It is not just the lack of investments that is at play here. Sector after sector has been besieged by a semi-crisis.

Several telecom companies faced an existential crisis after the Supreme Court ruling on AGR and simultaneously, BSNL has shed over 78,000 employees while MTNL has shed over 40,000. These are big layoffs amidst big crisis. IT companies were reported to be laying off mid-to senior-level executives to deal with skill challenges. 35,000 were reported to be laid off in the sector and the count was expected to go up to 50,000. The automobile sector faces its biggest slowdown of recent times. Bosch announced that it would reduce headcount in India by over 10 per cent. Hero MotorCorp is also shedding manpower. And, new-age enterprise Ola is reducing its workforce by 5-8 per cent. Even food delivery enterprises like Zomato, Swiggy and UberEats are facing new challenges as growth has slowed down. Uber has reportedly cut staff by 10-15 per cent. Future Group was reported to be shutting down 140 grocery stores after having grown rapidly till recently. Oyo plans to fire 1,200 in India. NBFCs, brokerage companies face their own challenges.

Public sector banks are being merged, Air India and more are to be privatised. More jobs may be lost.

Employment contraction that so far was limited to the unorganised sectors has started to hit the organised sectors.

Contraction of employment in the unorganised sectors does not stir the conscience of India's chatterati or the mainstream media; it does not directly impact the middle classes or the aspirational Indian and it has not moved policy makers or politicians sufficiently. But, a contraction in employment in the organised sectors will hurt India's middle classes and it has much raved about aspirational Indian.

The angst against the new citizenship law and against the growing perception of a government machinery being pitched against young students in campuses is headed to soon meet a severe lack of jobs in the organised sector. This confluence of anger in the youth, an anger that has been vitiated as they seem to be pitched one against another, with a corporate sector that closes its doors to them will give us the first screenplay of the demographic disaster that India may have just created for itself.

The author is managing director & CEO, CMIE

LETTERS

Half-hearted measures

This refers to "Accept or not, privatisation is on" (January 13). There is no doubt that the total market share of the banking business, deposits, advances etc of the public sector banks (PSBs) have fallen steeply in recent years and private banks are the major beneficiaries of this phenomenon. But the moot question is whether the private banks have the wherewithal to offer banking services to the millions of lower middle class and poor people in metros, cities, smaller towns and villages at affordable prices? Will the private banks be able to open branches in interiors of states like Uttar Pradesh, Orissa, Assam etc, for those who have come into the financial system as a result of financial inclusion efforts. The answer is likely to be "no". It is for the government to ensure that PSBs and regional rural banks become more efficient and cost-effective intermediaries. It is time half-hearted measures to improve the functioning of the urban co-operative banks (UCBs) end and more comprehensive steps to bring efficiency and transparency in the functioning of the UCBs are introduced.

Arun Pasricha New Delhi

Avoid reckless caution

Drones with multiple potential benefits — ranging from enabling food-delivering companies to service people living in high-rise apartments in urban areas cost-effectively and delivering medicines to people living in remote hill areas to delivering seeds to reforest such areas — has now evoked concerns among security agencies across the globe. That drones have been used by terrorists and state security agencies alike to target their enemies — the latest being the drone attack by the US to kill Iranian military general Soleimani — is now leading many countries, including India, to tighten the regulatory oversight over this infant sector. While acknowledging and appreciating the move by the Indian government to usher in stringent requirements for drone manufacturers and operators through its new registration portal called Digital Sky Platform, we should not be oblivious to the significance of exercising caution to ensure that the so-called stringent regulatory oversight does not morph itself into an arbitrary one, thus stalling its growth. As a technology that has the potential to open up multiple markets, the government should desist from exercising reckless caution.

M Jeyaram Tamil Nadu

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HAMBONE

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Moral hazard

Instead of immunity, India needs simpler tax laws

The government is reportedly planning to come up with an immunity scheme for direct tax assessees in the upcoming Budget. The scheme will allow them to declare any additional income in the past five-six years without facing penalty or prosecution. The idea has been proposed by the direct tax task force. The government expects that the scheme will help generate revenues of about ₹50,000 crore in the first year of implementation, aside from improving compliance. The motivation for the government is not very difficult to understand. It is facing a significant shortfall in revenue collection in the current fiscal year and is likely to overshoot the fiscal deficit target of 3.3 per cent of gross domestic product. For instance, net of refunds, direct tax collection witnessed a growth rate of 0.7 per cent till December 15, compared with the target of 17.3 per cent. Given the state of the economy, managing government finances is likely to remain a formidable challenge even in the next fiscal year. Therefore, the government would welcome revenue inflow by any means. Besides, the government expects the scheme to help reduce litigation. About 500,000 cases are said to be pending at different levels with the disputed amount worth ₹7-8 trillion.

However, such immunity schemes are better avoided for at least two strong reasons. First, it affects the firmness of tax laws and would discourage taxpayers from filing their dues accurately. What is the need to take tax laws seriously when the government comes up with some immunity or amnesty scheme at regular intervals? It is also unfair to honest taxpayers. The moral hazard comes from the negative impact it has on behaviour. For a tax evader, the thought that there will be a window of forgiveness in future is bound to encourage deviant behaviour. Second, the history of such schemes, starting from the 1950s, shows that they don't yield the desired results, and it is highly unlikely that the government will get anything close to the quoted amount of ₹50,000 crore in the first year of implementation. For instance, the ongoing Sabka Vishwas Scheme for legacy dispute resolution in the area of indirect taxes is said to have raised ₹30,000-35,000 crore, against the estimates of about ₹1.5 trillion, prompting the government to extend the deadline to January 15. Schemes for direct tax assessees, launched after the National Democratic Alliance government came to power, have also shown underwhelming results.

Therefore, instead of immunity and amnesty schemes, the government needs to work on two areas to improve its finances, and the Budget for 2020-21 will be a good starting point. First, the expenditure should be aligned with a realistic expectation of revenues. The government tends to overestimate revenues and underestimate expenditure, which creates a problem. Second, work on simplifying tax laws, along with rationalising rates, should be expedited. This will not only help increase compliance and revenues but will also reduce litigation. The government has done well to introduce faceless scrutiny of income tax cases. This will help check harassment and augment compliance. Further, the government needs to build capacity in the tax administration to be able to identify tax evaders. Regular use of immunity and other such schemes reflect capacity constraint and misallocation of resources in the tax administration.

China's Taiwan tangle

More doubts on 'one-country-two systems' principle

The landslide re-election of pro-independence Taiwanese President Tsai Ing-wen raises a fresh challenge for China's "one-country-two systems" principle on its south-east and southern peripheries. Taiwan's election results are significant because they come soon after Beijing's unsuccessful efforts to quell pro-democracy protests in Hong Kong, which resulted in a resounding defeat for pro-Chinese candidates in local elections there. Ms Tsai, who came to power in 2016, had explicitly rejected the ambiguous 1992 consensus between the Kuomintang, then the ruling party, and China, binding the two more closely on the "One Country-Two Systems" principle, including multiple trade and economic cooperation agreements. Even in a society as efficiently repressive as China, the possibility of pro-democracy blowback on the mainland represents a danger to Xi Jinping, appointed president for life in 2018, and the seven-decade dictatorship of the Communist Party. So Beijing's response to these geographically peripheral but politically significant threats to its authority remains the big question.

Thus far, Beijing has followed the familiar path of upping the ante in both territories. The head of the Taiwan Affairs Office has intoned the party line that China would oppose any acts for the independence of Taiwan. In Hong Kong, Beijing replaced its top representative last week, signalling a doubling down of action against protestors there. How far these muscular moves are likely to bind one *de facto* independent nation and one semi-autonomous territory to the authoritarian regime in Zhongnanhai, seat of China's party and government, is an open question. The mushrooming of anti-government posters in Hong Kong following the Taiwan election results tells its own story.

Inconveniently for Mr Xi, the test for this notion of "one country-two systems" lies in the economy, specifically, the outcome of the debilitating trade war with the US and its heavy dependence on Hong Kong for inward investment in mainland trade and industry. China's economy has been slowing steadily —its 6 per cent third-quarter print marked the lowest in 27 years — and the seven-month long protest saw Hong Kong's economy shrink 3.2 per cent in the third quarter, leaving jittery global financial institutions to eye alternative locations in South-east Asia. Ironically, however, the trade war with the US saw Taiwan's economy grow 2.6 per cent — faster than Singapore or Korea. This growth has been the result of a surge in Taiwanese firms investing at home, principally by on-shoring investments from mainland China. Intellectual property disputes have been at the heart of the US-China trade war and Taiwanese business responded by relocating their ICT platforms from China to Taiwan, despite higher costs. The result has been healthy 16 per cent growth in US-Taiwan trade (most of it in ICT).

Ms Tsai's rise to power in 2016 — she won 56 per cent of the vote then and 57 per cent in 2020 — was an expression of young Taiwanese' disaffection with the Kuomintang's close economic ties with the People's Republic of China, making China Taiwan's largest trading partner. Going forward, the economic differentials between a slowing dictatorship and a fast-growing democracy may well undermine the legitimacy of China's regime far more insidiously than the 1989 students' protest in Tiananmen Square. And even if Beijing cracks down with greater viciousness on Hong Kong's protestors, Taiwan will remain the bigger democratic thorn in Beijing's side for some time to come.

ILLUSTRATION: AJAY MOHANTY

The inequality debate we need

Rich countries need to start thinking about how to deal with global energy inequality before it's too late

KENNETH ROGOFF

While denizens of the world's wealthiest economies debate the fate and fortune of the middle class, over 800 million people worldwide have no access to electricity. And more than two billion have no clean cooking facilities, forcing them to use toxic alternatives such as animal waste as their main cooking fuel. Furthermore, per capita carbon dioxide emissions in Europe and the United States are still vastly higher than in China and India. What right do Americans, in particular, have to complain as China increases production in smokestack industries to counter the economic slowdown caused by its trade war with the US? To many in Asia, the inward-looking debate in the West often seems both tone deaf and beside the point.

Even if Europe and the US deliberately stall their capitalist growth engines — as some of the more radical policy proposals might do if implemented — it would not be nearly enough to contain global warming if emerging economies stay on their current consumption growth trajectory.

The most recent United Nations data suggest that the world has already reached a tipping point where there is little chance of limiting the increase in global temperature to what climate scientists consider the safe threshold of 1.5°C above pre-industrial levels. In fact, a significantly larger rise is likely. According to a recent International Monetary Fund report, limiting global warming even to 2°C would require a global carbon price of at least \$75-100 per tonne of CO2 — more than double its current level — by 2030.

Any solution to the problem requires two interconnected parts. The first and more important is a global tax on CO2 emissions, which would discourage activities that exacerbate global warming and encourage innovation. Equating the price of CO2 emissions globally would eliminate distortions whereby, say, a US-based firm might choose to relocate its most carbon-intensive production to China. Moreover, a worldwide carbon tax would achieve in one fell swoop what myriad command-and-control measures cannot easily replicate.

The second critical component is a mechanism that impels emerging and less-developed economies to buy in to emissions reduction, which can be very costly in terms of foregone growth. In recent years, the biggest contributor to the increase in CO2 emissions has been fast-growing Asia, where roughly one new coal plant is being built every week. For advanced economies, where the average coal plant is 45 years old, phasing out such facilities is low-hanging fruit in terms of reducing CO2 emissions. But in Asia, where the average age of coal plants is only 12 years, the cost of taxing plants into oblivion makes doing so virtually impossible without outside aid.

Yes, Europe and the US can impose carbon border taxes on developing countries that do not comply with their standards. But, beyond the associated technical challenges, this would raise issues of fairness, given profound global energy inequality. One promising idea, which I have suggested previously, would be to establish a World Carbon Bank that would specialise in energy-transition issues and provide technical and financial assistance to poor and middle-income countries.

In principle, either a carbon tax or a quota system, such as the one Europe has instituted, can work. But, as the late economist Martin Weitzman showed in pathbreaking work in the early 1970s, there are important subtleties depending on the nature of uncertainty. For example (and greatly oversimplifying), if scientists have a fairly precise idea of the amount of cumulative CO2 emissions that the planet can handle between now and 2100, and if economists are not so sure what price trajectory would induce countries and firms to adhere to those limits, then the case for (tradable) quotas is strong. Under other assumptions about the nature of cost and benefit uncertainties, a carbon tax is preferable.

One issue Weitzman did not consider is that carbon tax agreements are likely to be more transparent and easier to monitor than quotas; this is particularly important in international trade. There are good reasons why a succession of multi-country tariff-reduction agreements after World War II sought to strip away regulatory and quantity constraints, and replace them with relatively simple tariff schedules. In addition, carbon taxes could generate significant revenues to support green research, compensate low-income households within countries for transition costs (for example, by giving car owners incentives to trade in old "clunkers" and buy more fuel-efficient vehicles), and fund transfers from rich to poor countries through a mechanism like the World Carbon Bank. Quotas could, in principle, be auctioned to achieve the same goal; but they are often given away.

In practice, almost all of the 40 countries that have established national carbon prices have done so indirectly, via quotas. European policymakers are particularly enthusiastic about this approach, arguing that it is much more politically palatable than introducing a carbon tax. But it is not at all clear that the same is true for a global system, where transparency carries a premium. As the cost of distorting taxes and quotas increases, it makes sense to align across the most efficient possible system.

The scientific evidence increasingly indicates that the world may soon reach a point of no return regarding climate change. So, rather than worrying almost exclusively about economic and political inequality, rich-country citizens need to start thinking about how to deal with global energy inequality before it's too late.

The writer is a former chief economist of the IMF, is Professor of Economics and Public Policy at Harvard University. ©Project Syndicate, 2020

Quo vadis, Modi 2.0?

ET CETERA

SHREEKANT SAMBRANI

"A week is a long time in politics," Harold Wilson is supposed to have quipped on his way to victory in the 1965 British Parliamentary election, the first Labour triumph in 14 years. If seven days are too long, seven months must surely be an aeon, or so it would seem to the rather beleaguered Narendra Modi government at the start of 2020, after its famous victory last May (a Joseph Lee 1974 cartoon titled 'Victory ...with strings' showing Mr Wilson as Julius Caesar and fettered with ropes labelled unemployment, business confidence, opposition politics, Scots-Welsh nationalism, among others, would seem especially apropos for Mr Modi now).

Opposition parties, the media (both local and especially the global) and the commentariat have declared open season on the government and rightly so. Its inept handling of the vexing issues of the day — Kashmir, citizenship Act and registrations, seemingly spontaneous protests by not just young students but also by older citizens — is the least of the grounds for the opprobrium. More fundamental concerns with basic values and observing democratic norms not just in letter but in spirit as well should trouble even otherwise thinking supporters of the present dispensation — and they have.

Some of the criticism is sheer hyperbole, calling the present turmoil India's second struggle for Independence. That was supposed to be in 1975-77, against the Emergency. But even those who believe politics is the art of the possible and not a Sunday school lesson in morality cannot ignore the fact that the government's management of the economy is less than satisfactory. The sounds of economic thunder may have appeared distant when first heard a year or so ago, but now they are within the audible range of even those wearing ideological ear buds.

Some obfuscation prevails even in current economic commentary. A recent column by William Pesek headlining India as having the worst economy in 42 years has gained much traction. The writer rightly says that the nominal rate of growth of 7.5 per cent is the lowest since 1978. Another pundit avers that the 14.5 per cent rate of growth needed to reach a \$5 trillion economy (reckoned in real terms), is impossible to achieve. But surely the correct concern should be with the real rate of growth for the current year (which at 5 per cent is nothing to write home about) or the real rate of growth needed to reach the \$5 trillion goal in five years (which is still a near-impossible 9-plus per cent).

But let us concede that issues such as rates of growth and budgetary deficit are too arcane for the *aam aurat*, and her perception is really what matters at the ballot box. Mr Modi might think that just as he successfully rode the demonetisation storm to unprecedented electoral success not just in Uttar Pradesh but all over India as well, he might overcome the current disquiet by appealing to nationalistic and xenophobic sentiments. This is evident from the twin thrust he and his second-in-command Amit Shah appear to be following. One takes the high road of persuasion while the other takes the low one of threats.

But surely the otherwise astute duo must realise that just as armies cannot be expected to march on empty stomachs, voters cannot be expected to re-elect regimes that hurt their pocketbooks. The unintended collateral effect of *notebandi* was a long spell of low prices of essentials, especially food, which greatly cushioned the blow. Now we have a lurking iceberg only the tip of which is beginning to surface. In the last two months, prices of some necessities have gone up alarmingly, as confirmed by the recent retail inflation data. Arhar dal has gone from ₹70 to ₹85 or more a kilo, sugar from ₹33 to ₹39 and the cheapest edible oil from ₹80 to over ₹90. But we talk of only the onion prices and breathe a sigh of relief that they are coming down sharply.

We have not really understood what caused the onion inflation. This column had pointed out that while onions typically follow a seasonal cycle of low and high prices, "a breakdown of competitive markets is the root cause of vegflation" ("The onion enigma," October 8, 2019). This current spike was both much higher (up to ₹110 per kg) and of a longer duration (September to December). To understand how that came about, plot political events (elections in Maharashtra, poaching of opposition leading lights, Enforcement Directorate enquiries against opposition leaders, among others) against prevailing onion prices. It should not be too difficult to join the dots and come to the conclusion that otherwise vanquished political formations are still capable of erecting significant economic roadblocks.

Mukul Kesavan has observed perceptively "Narendra Modi is not a time server... [H]e serves a cause larger than himself... to successfully redefine citizenship ... [and] approach the election of 2024 at the head of a putatively Hindu nation" ("The foundation is laid," *Business Standard*, December 29, 2019). But he cannot get there if his government ignores *atte dal ka bhav*. Their road map cannot forget the fact that the Nav Nirman movement which was the spark that brought down the Emergency regime sprung from students agitated about their mess bills.

The writer is an economist

Reading the CEOs

KITABKHANA

T C A SRINIVASA-RAGHAVAN

Thanks to the Left, whose conscience substitutes as its brain, the mythology has been fostered that businessmen, businesswomen and mangers are incapable of thinking about the four most important things in society: Ethics, equity, justice and an altar other than political and religious texts to hang our moral coats on.

The truth, however, is absolutely the opposite. So it's good to see some highly successful managers prove it.

I refer here to only four such men. But doubtless there are more, perhaps even women, of whom I am as yet unaware.

The four are Gurcharan Das, Arun Maira, R Gopalakrishnan and Jaitirth Rao. In the last few years, all four have written books that show two things quite conclusively. All have been CEOs.

One, that it is possible to discuss concepts from philosophy without the accompanying jargon-doused salad dressing that academics serve up. And, two, eruditely talking sense is inversely related to verbal pomposity that is thrown like a collapsed tent over ignorance.

Thus, Gurcharan Das has written often about *dharma* and has been challenged and debated often. But the other three are new.

R Gopalakrishnan has written about justice amongst other things; more recently, Arun Maira has written about ethics; and, most recently, Jaitirth Rao has written about conservative thought in India. All ask questions that need asking, namely, how do we make Indian society better and replete with the characteristics mentioned above.

The Right also thinks so, which is why I despise intellectuals from both sides. They think smugness is the perfect substitute for wisdom and the State is the panacea for all ills

Two of these books, by Messrs Maira and Rao, are new. All four books are available online and can be bought for less than ₹2,500.

It's money well spent because the Left, in its eagerness to give the State preeminence, has simply never grappled with these things as it believes that the State is the embodiment of all virtue. In Latin this method is called *ipsi dixit*, ie because I say so.

Oddly enough, the Right also thinks so, which is why I despise intellectuals from both sides. They think smugness is the perfect substitute for wisdom and the State is the panacea for all ills.

Jaitirth Rao has dealt with a subject that India has never really bothered with much: conservative thought. He provides a very loose definition of it, as a preference for tradition and gradualism — or something thereabouts.

As such it's not a complete definition but it will do to begin with for a very important reason: It reduces the emotional content of recent Indian thinking on social issues by injecting some cerebral dye into it.

The need for this cannot be underemphasised. It's the brain that should do the thinking, not the heart.

That said there are two other themes the book should attempt. They can only extend the boundaries of conservative thought in India.

One is to discuss how conservative thought approaches the problem of using tradition to justify coercion within families and communities. The other is the problem of balancing what I call the Impossible Social Trilemma: Equity between groups, justice for individuals and efficiency for the economy.

I should point out here that the Chanakya/Kautilya type of reasoning is not very helpful when the State is up for grabs in democratic competition because at that time sovereignty didn't reside in the people but in the King or Queen.

Marx said the State would do it. But since he didn't spell out the details, Stalin ran off with the ball after silencing his rivals. His rule cost the Russians around 2.5 million lives.

Arun Maira has written an equally thoughtful book about an ethical toolkit for the world. Of particular philosophical interest is his question about how we will deal with society when it is going to be dominated by artificial intelligence (AI), and to lesser extent by social media. How do you programme a machine so that it can differentiate between right and wrong?

The book is rich in questions of this sort. His basic point is crystal clear: How do you arrive at an optimal trade-off between two good social choices? By regulation or trial and error? Despite a few thousand years of trying we are no closer to a universally acceptable answer.

This leads straight to the question of justice which Gopalakrishnan has discussed in his book. He asks a simple question: Why is justice not a fundamental right? I can't recall a single jurist or political science professor asking this question.

Let me end by asking if any B-Schools offer courses in philosophy. If they don't because they don't know who will teach it, they can start with any or all of the four former CEOs above.