MY VIEW | VOX HETERODOX

The return of industrial policy is welcome but it needs far more

India's production-linked incentive scheme marks a good beginning but success would require deploying a deeper strategy

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The story of industrialization in India since 1991 is somewhat dismal, compared with the performance of other Asian countries. Between 1990 and 2019, India's share in world manufacturing value added (in current prices at market exchange rates) increased from 1.3% to 3.1%, while that of China jumped from 1.3% to 28.7% and that of Asia (excluding Japan) rose from 8.3% to 45%. This outcome refutes the claims of market enthusiasts who argued that economic liberalization would increase efficiency and foster growth of the manufacturing sector.

In East and Southeast Asian countries, success at industrialization was driven by industrial policy implemented by governments, recognizing that economic openness, while necessary, was not sufficient. In India, the government abandoned industrial policy without creating the conditions or the ecosystem that could have enabled manufacturing to become competitive in world markets.

Strangely enough, it was not recognized that industrial policy was responsible for the three success stories of industrialization in India: pharmaceuticals (the Patents Act of 1970 eliminated product patents in medicines), automobiles (stipulation that Suzuki would produce a car with 70% domestic content within five years) and information technology (income tax exemption/concession for two decades). The dismantling of India's industrial policy, starting in the early 1990s, juxtaposed with increasing economic openness, had its consequences. The share of the manufacturing sector in GDP dropped from 17.5% in 1995-96 to 13.5% in 2019-20, suggesting a premature de-industrialization.

Reviving industrialization is an imperative for India. It is the only path to employment creation, as the jobs potential in agriculture is negligible, while the informal services sector is an employer of last resort with its low-income and poor-quality jobs. It is a potential source of economic growth, for it can provide employment at higher productivity levels than elsewhere, absorbing unemployed people, our most abundant yet underutilized resource. And manufacturing is the only means of creating capabilities in the Indian economy to organize and transform its productive activities, so essential for development. Thus, it is time to rethink and revive industrial policy.

In 2021, the government announced its production-linked incentive (PLI) scheme with a total outlay of ₹197,000 crore (roughly $25 billion) over five years, with specified allocations for 13 selected sectors. The largest shares are for automobiles and components (29%), mobile phones and components (20%), pharmaceuticals and ingredients (11%), advanced cell batteries (9%), telecom (6%). The remaining 25% of the outlay is divided between food products, textiles, specialty steel, white goods, electronic products, solar PV modules, and medical devices. The disbursements will be based on performance as a percentage of incremental sales (over base year): 4% in first year, 3% in second year, 2% in third year, and 1% in fourth year.

Such support related to production and sales, rather than exports, is admissible under World Trade Organization rules. It is provided to eligible firms in selected sectors, not selected firms, so that it is non-discretionary. The selection of automobiles, pharmaceuticals and textiles is possibly based on a revealed comparative advantage in exports, while the choice of mobile phones, food products and specialty steel could be based on an assessment of potential comparative advantage that may stimulate exports, but the choice of batteries, telecom, white goods, electronic products and medical devices probably seeks to replace imports.

This is a first step in reviving industrial policy, which is an important beginning. Even so, it must be recognized that industrial policy succeeds where there are effective governments, with the ability to coordinate economic policies across sectors over time in pursuit of national development objectives, using carrot-and-stick means to implement their agenda. It is simple enough to dangle carrots. It is more difficult to enforce compliance so that incentives are contingent on performance, or to impose penalties whenever stipulated objectives are not met. It is just as important to ensure that the support is time-bound. Therefore, exports that can ultimately compete in world markets, in price and quality, are the real litmus test of success.

The PLI scheme has some obvious limitations. The selected sectors are largely capital, technology or skill intensive in production, so they are unlikely to create mass employment. Only some among the selected sectors will be subject to the price and quality discipline of export markets. Despite the sunset clause implicit in the scheme, there might be pressures to continue support beyond five years.

Beyond the PLI scheme, the wider context is far more important. The revival of industrialization in India requires, inter alia, calibration of trade policy, correctives in exchange rate policy, recognizing the critical role of interest rates and a rebirth of industrial finance. Strategic coordination of these policies in a long-term perspective, often described as industrial policy, which was at the foundations of success in Asia's industrialization, is essential.

For latecomers, catching up in industrialization is not simply about imitating, following and learning from leaders, because that is a moving target which becomes more elusive with technical progress. It is just as important to think ahead of the curve, anticipating technological changes on the horizon, and leapfrog though innovation to become a leader in some sectors, as South Korea did.

Going forward, effective industrial policy will require an ecosystem of human capital, institutional quality and innovative capabilities. It will also need imaginative and creative thinking—for example, about evolving synergies between manufacturing and services.

QUICK READ

Our dismal post-1991 industrial record shows that liberalization alone isn't enough and we must revive industrial policy to create the number and quality of jobs needed to absorb our workforce.

The PLI scheme marks a start in that pursuit but we will need effective governance and policy coordination on trade rules, the rupee's value, interest rates and industrial finance to make it work.

MINT CURATOR

Private geo-engineers are just winging it to shade the planet

A startup offering climate cooling services should be a wake-up call

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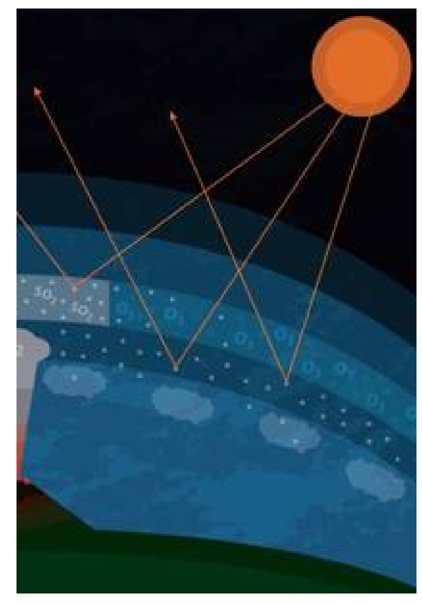

Make Sunsets went ahead on its own to release stratospheric coolants ISTOCKPHOTO

There is no law or treaty to prevent a private company from tinkering with geo-engineering—say, releasing sulphur dioxide high in the stratosphere to alter the climate. And so there will be no fines or arrests following recent news that a startup quietly pulled off such a release last year by launching two balloons over Mexico. This sort of manipulation can alter the energy balance between the sun and Earth. In the upper atmosphere, sulphur dioxide forms suspended particles of sulphuric acid that act to scatter sunlight and cool the planet. The US Clean Air Act isn't set up to deal with this sort of thing—it's focused on power plants, cars and regional air-quality standards, said UCLA environmental law professor Edward Parson.

The startup is Make Sunsets, and their plan, as per *MIT Technology Review*, was to counter global warming. They'd make money by selling carbon credits, so firms could pay them to release cooling particles that would allegedly nullify their emissions. Each gram of sulphur would cost $10 and offset 1 tonne of CO2.

The main problem is that it would not work. Sulphuric acid particles can only mask global warming for a year or so. Then they settle out of the atmosphere, while the carbon stays up there for thousands of years. And there are likely side effects from doing this at any useful scale. Parson has called it a case of "a rogue pseudo-scientist claiming to help the environment."

Luke Iseman, CEO of Make Sunsets, told me he was obsessed with geoengineering after reading the sci-fi novel *Termination Shock* by Neal Stephenson, in which a Texas billionaire launches sulphur into the stratosphere. He says he understands the scientists' criticisms that the effects of the sulphur don't negate emissions, but he believes it's the only feasible way to buy the time needed to stay below "a catastrophic level of climate change." He said he plans to make two more launches this month from Mexico, and that his ultimate vision is to spend the next 20 years releasing "as much as I possibly can while doing it safely."

But there's no scientific consensus that geoengineering is the only way to avoid catastrophe. Scientists, including several panels called by the National Academy of Sciences, have looked at the possibility of geoengineering to battle global warming, but no field experiments have been done. What we know so far comes from a couple of a natural events. Volcanic eruptions, such as at Mount Pinatubo in the Philippines in 1991, can cause a year of cool weather and scientists have calculated that components of smog are holding down the global temperature about 1° Celsius, though smog also causes respiratory illness.

The good news is that private releases are too tiny to cause any harm. But the bad news is that it won't advance science. For years, scientists have been trying to do a small release to track. But using official channels has run into resistance. Scientists have tried to run an experiment called SCoPEx from Mexico and Sweden but been blocked by environmental groups. Yet, scientific experiments might tell us how natural and human-generated sulphur works up there and under what circumstances it might be reasonable to release [for its possible sun-shade effect]—say, if it gets so hot in India that millions are at threat, a scenario described in Kim Stanley Robinson's 2020 novel *The Ministry for the Future*.

Harvard physicist David Keith, who has studied the prospects, said it's possible to calculate how many lives you could save from heat and extreme weather, balanced with lives that may be lost to its side effects. But there are several unknown unknowns and geoengineering is a very bad substitute for technologies that reduce emissions or capture carbon.

Make Sunsets' private action vaguely resembles what happened in 2012, when a businessman dumped iron off the coast of British Columbia to fertilize an algae bloom that was supposed to absorb carbon and feed salmon. He claimed success with salmon, but we have [no scientific-method data to conclude if it did]. Perhaps this sort of thing comes with today's startup culture, with all its money and hubris. Parson says it's important that Make Sunsets' plan to sell potentially bogus carbon credits doesn't get traction. And after that, we need a rational discussion about thermal geoengineering. "Who gets to say it's okay to do this, and if it's done, how much is done and where and under what protections and with whom in charge?" asks Parson. "These are unexplored questions."

The upper atmosphere has no borders. What happens there affects us all. That's true of many activities, from cutting down rain forests to activities that risk releasing viruses. 'Move fast and break things' might work for startups, but it doesn't inspire confidence when we're talking about our one and only planet.

MY VIEW | PEN DRIVE

Sri Lanka today is like a postcard from another time

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From a distance, it looked like a large scarecrow had inexplicably washed up on Bentota beach in southern Sri Lanka. Close up, I realized it was an eco-friendly Christmas tree, decorated with multicoloured plastic discs that ordinarily keep fishing nets visible. The rough-hewn branches in the sand were near a mid-priced hotel called Wunderbar. The hotel, like many along this magnificent 4km stretch of golden sand, looked mostly empty. That morning, I counted half a dozen tourists as I jogged along the beach, which has a large Taj hotel at one end, on a stretch usually teeming with Indian and Western tourists in peak season.

The scarecrow-styled Christmas tree could also be seen as protest art. Out-of-date Western government advisory warnings about travelling there from the UK, Ireland and other European nations describe the island country as it was last summer, when it witnessed endless queues for fuel and medicine and daily street protests, rather than the normalcy that is the reality today. These advisories, coupled with images of the relatively peaceful uprising that led to the resignation of president Gotabaya Rajapaksa, have played Scrooge and ruined Sri Lanka's Christmas season. More than ever, the country needs tourism revenues to climb out of the debt trap it has fallen into.

A friend and her son who are at the end of a fortnight's trip, in which they covered 600km in a hired car, say they have not seen a petrol pump with a queue. Power cuts are limited to an hour or two a day. Compared with Bengaluru, where potholes are the size of craters, and Mumbai, where mushroom clouds of construction and thermal pollution overwhelm Marine Drive's views, Colombo seemed an urban paradise. But, *circa* 2023, the damage done by stories shared on social media and poorly worded Western travel advisories lingers on long after last summer's political crisis was imperfectly resolved and loans secured from India and others.

The story has moved on, but if you travel to Sri Lanka, be prepared to receive text messages asking if there is enough food. The previous president's ill-advised shift to organic farming and the subsequent surge in fertilizer prices has certainly pushed yields down and sent food prices soaring. Many among Sri Lanka's less well-off are reportedly skipping a meal a day to make ends meet, but tourists staying away will only ensure that many more people are rendered unemployed in one of the world's most pristine holiday destinations.

As a former travel editor for the *Financial Times* and subsequently as a tourist, I have mostly ignored travel advisories. I travelled to Bali in 2005 after terrorists struck three restaurants there and visited Sri Lanka repeatedly after suicide bombers killed 114 people on Easter Sunday in 2019 at St Sebastian's church and more than 260 in total including other bombings. That summer, I marvelled at the navy cadets' efficiency in restoring the church: Statues of Christ with blood stains visible from the attack seemed like a grim version of the crucifixion. Just weeks later, the church was back to normal.

Too much debt taken on by the Rajapaksa brothers from China at high interest rates for dubious infrastructure projects laid the foundation for Sri Lanka's foreign exchange crisis. But, the tourism downturn that followed harsh travel advisories against visiting it for months after the Easter bombings and the pandemic made a bad situation worse. Sri Lanka's tourism authority uses 2018 as a baseline to track the recovery. Arrivals in November 2022 were just under 60,000, well short of 195,582 in November 2018, showing how hobbled the country remains. Thailand, meanwhile, had tourist arrivals well above projections in 2022 and saw its current account deficit turn around.

At the Heritance Ahungalla, a hotel in Sri Lanka that arguably pioneered the infinity pool four decades ago, general manager Sisira Senaratne reports that only Sri Lankan tourists stayed in November. December was better, with a mix of Russians and others, but the absence of British and German tourists means occupancy in December was just 59%, compared with 95%-97% in a normal year. Most hotels are well below 60%. The finest hotel in Kalatura had just 7 rooms occupied of its 141.

I have been a frequent flyer to Colombo for two decades and my brief holiday there this month seemed like a postcard from another time. Its people were as charming as ever. "Welcome to beautiful Sri Lanka where the politicians are crazy," was how the Rastafarian-styled singer in Ahungalla greeted guests one evening. In Colombo, I ran into Dominic Sansoni, a well-known photographer. We were soon reminiscing about a legendary former Delhi bureau manager at *Time* magazine who we'd both worked with. At the home of architect Channa Daswatte, whose most recent project is a museum in Porbandar, I met a distinguished conductor, Harin Amirthanathan, who had just returned from India where he conducted the Paranjoti Academy Chorus. I nearly dropped my drink in surprise. The choir was founded by my granduncle Victor in the 1950s. It was a reminder that the many threads that tie our countries together are only one of countless reasons to visit Sri Lanka.

QUICK READ

It's a shame that Western travel advisories have been unfair to Sri Lanka and its tourism sector hasn't yet revived despite its crisis of shortages and political instability now long in the past.

Normalcy is back in every visible way and it's advisable now to yield as travellers to the allure of the country's beauty and charm of its residents by visiting it and spending some money.