



THEIR VIEW

MINT CURATOR

Set priorities to prepare for the global economy that's emerging

How well we leverage and ride ongoing transformations of energy and digital technology will determine India's success



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A new government will soon take charge at the centre. Hopefully, India's new government will have a long-term vision and the courage to think outside the box. Nothing less will do to prepare India for the emerging new global economy, driven by fundamental, disruptive technological changes that are gathering momentum.

There have been periods in history when such fundamental technological change has had a profound, pervasive impact on the way we live and work. The first industrial revolution triggered by the coal-powered steam engine, electricity, the oil-powered transport revolution and the computer and communication revolutions are illustrations of such disruptive technological change in modern history. Today, two such transformations are simultaneously underway: the energy transition and the digital transformation.

The fossil-fuel-based industrial economy had more or less run its course by the end of the 20th century, as it became evident that burning fossil fuels was leading to climate change, which could eventually make the earth uninhabitable. It took another quarter century for national governments to agree on targets to limit greenhouse gas emissions and switch to alternative technologies to arrest global warming. But action by governments to achieve those targets has proceeded at a snail's pace, while we are already experiencing the impact of global warming in our daily lives.

Fortunately, the market and private capital have come to the rescue. As the profitability of renewables became evident, massive private investment flowed in to fast-track the transition to solar power, wind power and green hydrogen across a wide range of industries. Costs plummeted as renewable energy capacity and products were rolled out at scale to reap economies of scale. Reports suggest that the costs of solar power, off-shore and on-shore wind power and electric vehicle batteries have dropped by 80%, 60-70% and 80% respectively. The binding constraint now is not technology, but inadequate availability of financing in developing countries where much of the transition to renewables must be done (Sudipto Mundle, *Mint*, 28 April and 25 May 2023). However, the market is likely to devise instruments like guarantees and insurance to find its way around this constraint.

Though markets and private capital are leading the energy transformation, national governments are also playing a key role in supporting and subsidising private companies. Chinese companies now control more than three-fourths of the global photovoltaic cells market and well over half the global market for wind turbines, electric vehicles and e-vehicle batteries, thanks to large scale government support. There has been pushback from



the US and EU. But US companies are also receiving billions of dollars in subsidies under the Inflation Reduction Act and the EU is contemplating its own counter-measures. Green industries are growing rapidly, thanks to intense global competition among leading companies, supported by their respective governments.

Most of the examples of disruptive technical change cited at the outset were embodied in machines designed to replicate and multiply hugely the physical capacity of human beings. But the computer revolution pioneered by Alan Turing and others led to machines that would replicate and massively multiply the mental capacity of human beings. Semi-conductor chips multiplied the capacity of these machines manifold while miniaturizing them. Computers combined with the communication revolution gave us the internet, then smartphones and finally artificial intelligence (AI): large learning models that don't just follow human commands, but autonomously replicate and hugely multiply, with Generative AI (GenAI), their capacity for some forms of human-like thinking. The advent of AI will further change the way we live and work.

Deep thinkers like Geoffrey Hinton, recognized as the 'father of AI,' and Israeli philosopher Yuval Harari fear that AI poses an existential threat to humankind. Others like Sam Altman, CEO of OpenAI, argue AI can be deployed to immensely

enhance human knowledge and creativity across many fields.

In India, the AI experience has been quite positive so far. The Microsoft LinkedIn Work Trend Index indicates that 92% of knowledge workers in India use AI, as compared to a global average of 75%. However, much of this has to do with the application of AI and GenAI algorithms, rather than creating them. There is now intense global

competition, especially between the US and China, in leading this digital transformation, since its enormous strategic and economic potential is clear.

Perhaps for the first time in history, two fundamental technological transformations are taking place together, their pace intensified by global rivalry. Barring catastrophic shocks, this will usher in a massive investment boom and decades of high growth as new technological and economic processes change the world in which we live.

It is at this critical juncture of a global economic transformation

that a new government will take charge to lead India for the next five years. How well we prepare to leverage both technological transformations and ride them successfully will determine whether India becomes the third largest economy by the end of this decade, as has been projected, and a developed country by the middle of the century. Hopefully, this will be the strategic agenda of India's new government.

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It is at this critical juncture of a global economic transformation that a new government will take charge to lead India for the next five years. Its policy agenda must focus on new opportunities.

Transparency holds the key to a carbon market that delivers

Resolving this market failure will help us against climate change



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The problem of climate change cannot be solved without capitalism. Governments have tried for more than three decades with little to show for it. And while more of them are now engaging partners in the private sector, the world is still lagging in deploying the full power of the market. An announcement by the Joe Biden administration in the US could help change that by beginning a much-needed overhaul of the market for carbon credits.

Global investment in clean energy has accelerated but is far below what's required to restrain rising temperatures. Governments will not make up that difference on their own. Private capital will be needed, and while businesses and investors are eager to provide it, a market failure in one crucial area—carbon credits—is keeping them on the sidelines.

Carbon credits, which are bought and sold in a voluntary carbon market, offer companies and investors many ways to reduce greenhouse-gas emissions. In addition to helping finance new clean-energy installations, these credits can drive capital to projects with high upfront costs and high potential rewards, such as scaling up green hydrogen technology. They can also play a role in funding reforestation and ecological preservation, as well as financing the early retirement of coal plants.

There is enormous potential demand for carbon credits. Many business leaders recognize that tackling climate change is in their companies' self-interest and are setting ambitious decarbonization goals. That is not altruism. It's capitalism.

Companies have far less control, however, of their 'Scope 3' emissions, those generated by suppliers and customers. Letting firms buy credits against these emissions—but only after they disclose and begin implementing robust plans aligned with the Paris Agreement—could dramatically increase demand for them. For the demand side of the market to function, however, supply side problems must be fixed. Right now, the market for credits is opaque and riddled with inefficiency. Buyers can't be sure which credits are credible, projects often don't deliver what they promise and sellers can't be held accountable. Lack of transparency also opens the door for greenwashing, where companies claim to be making a much bigger difference than they are, which fuels public scepticism about [private efforts].

As a result, the market for carbon credits is much smaller and far less useful than it should be. Many of us have long been sceptical of it, and for good reason. As with any



The US is trying to fix its faulty market for carbon credits

market, opacity breeds not only inefficiency but also corruption.

This is a market failure we can fix, and we should treat it like any other market failure. For instance, when banks collapsed and the stock market melted down in 2007, the world didn't walk away from markets and banking. Governments worked to address some of the causes of the crisis, including requiring more transparency of opaque securities like credit default swaps and collateralized debt obligations. A similar remedy is needed for carbon credits.

Transparency works. Bloomberg's story is a testament to that. When we created Bloomberg in 1981, there was virtually no way for firms (especially smaller ones) to negotiate bond prices with sellers, because sellers had all the information. Prices were inflated, commissions were enormous and the market was inefficient. By creating real-time bond pricing and making it available to buyers and sellers, we helped level the playing field and allowed more capital to flow to productive assets, benefiting investors and driving economic growth.

For markets to work well, they must be transparent, trusted and standardized—three qualities that have largely eluded the market for carbon credits. But change is coming. The US has released a policy statement and set of principles for building more transparent, responsible and effective voluntary carbon markets. It's an important step that builds on work led by the Integrity Council for the Voluntary Carbon Market and the Voluntary Carbon Markets Integrity Initiative.

Together, these efforts can do for the carbon market what the Bloomberg Terminal helped do for the bond market in the 1980s. Through transparency and standardization, we can generate more trust that these investments are sound, turning a relatively small market into an enormous one, and a relatively inefficient one into a powerhouse. This way, we can unleash the market power that we desperately need on our side in this fight. Encouraging other nations to join should be a priority for the Biden administration, including at November's G20 summit in Rio de Janeiro.

Fixing the carbon-credit market won't solve the climate crisis on its own, but it will go a long way towards enlisting the market in the fight.

MY VIEW | PEN DRIVE

Inclusivity crisis: Transgender students need support

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India's democracy is famed globally not just for its size, but for its diversity. There are sections of people, however, who suffer the effects of centuries-old practices that deny them their right to equality. One such community at the receiving end comprises individuals who identify as LGBTQIA+.

While doing our internship at Basera Samajik Sansthan and living with transgender people for 15 days, we observed much variation in how they chose to describe themselves. A transgender woman, someone assigned the gender 'male' at birth who identifies as female, might describe herself as a "transwoman", "male-to-female" or simply "female," and vice versa. Some do not identify as either male or female, opting to go beyond the gender binary.

In India, transgenderism is well known as a sub-culture. Yet, mainstream awareness about the community is very low, which worsens their social oppression. A transwoman working for a global lifestyle brand

recounts how co-workers would often ridiculed her appearance. Customers would also pass snide remarks and avoid her billing counter. She was deeply disheartened, she says. In another instance, a transgender individual secured a job at a renowned pathology lab. On her first day, the organization invited the media to celebrate its recruit and showcase its commitment to diversity and inclusion. It was good news for all transgenders in need of regular jobs. However, after seven months, the company asked her to leave, citing an alleged contractual term that was never documented. Unlike the fanfare on her first day, her dismissal got no media attention. Diversity for the lab was only performative, she says, aimed at brownie points instead of genuine inclusion. This incident highlights the reluctance of employers to accept transgender individuals. Similar cases of discrimination are found in educational settings.

Data suggests that the literacy rate among India's transgender population is significantly lower than the national average. This disparity extends to education, with transgender students dropping out of school. Many of them face a hostile environment within institutions. Bullying, harassment

and the targeted use of derogatory language create a climate of humiliation and anxiety. These experiences take a toll on their well-being, contributing to depression, a major factor leading young people to leave school prematurely. Despite their academic goals thwarted. This highlights the need for rapid progress in creating safe and welcoming learning environments for all.

There are an estimated 25 million transgender people globally, and they are nearly four times more likely to suffer from conditions like depression, anxiety and the ills of substance misuse than cisgender individuals. The former often encounter barriers to enrolling in higher education due to discrepancies between their birth certificate's assigned sex and their gender identity. As a result, many are unable to pursue university education. In India, low educational qualifica-

tions and job discrimination have led some to turn to prostitution for income, with increased vulnerability to sexually transmitted diseases. Government policy interventions for transgenders include the National Youth Policy, which recognizes transgender youth as marginalized and calls for support for the LGBTQ+ community. Then, there are Transgender Persons (Protection of Rights) Rules and Ayushman Bharat TG Plus Scheme, among several other welfare schemes. The way forward would be to

establish specialized schools for vocational training and guidance, promote transgender culture, integrate transgender-related topics into academic curricula and explore new modes of engagement that can dismantle barriers and foster inclusive classrooms. We must also respect people's chosen names and pronouns, provide gender-neutral facilities, ensure confidentiality, offer financial

Whether it's as students or job seekers, transgender folks still have to bear discrimination and hostility. Their upliftment will be a long haul but the principle of equality demands that we act.

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Those who identify as LGBTQIA+ deserve better. We must respect chosen names and pronouns, provide gender-neutral facilities, strengthen legal protections and establish feedback mechanisms.

assistance, strengthen legal protections and establish feedback mechanisms. Support for transgenders in pursuit of education and employment, of course, must be a priority.

Vision statements and guidelines apart, very few educational institutions in India have established inclusive environments for LGBTQ+ students. Gender-inclusive policies are imperative for a substantive change to be achieved. To this end, it is crucial for everyone to acknowledge the right of transgender students to determine their own gender identity. The transition processes of officialdom that involve gender and name changes should be smooth.

It is time to set up committees dedicated to addressing gender minority concerns. From privacy issues to protocols, there is much ground to cover. Further, state governments should implement appropriate laws to regulate institutions and ensure compliance with inclusion guidelines. For truly effective law-making, opinions need to be sought from within the transgender community and taken into consideration.

Community participation is a very important factor for overall progress on gender inclusion—so that everyone in the country can live a life of dignity.

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