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BUSINESS

# The Technology Bug That India's Economic Advisory Council Must Tackle

BY NILANJAN BANIK ON 23/10/2017 • LEAVE A COMMENT

As much as 90% of increases in per capita income come from technological innovation. The Economic Advisory Council should look for a strategy that will make technology inclusive.



Bibek Debroy, chairman, Economic Advisory Council to the Prime Minister (EAC-PM) with members Ratan P. Watal, Rathin Roy, Surjit Bhalla and Ashima Goyal during a press conference in New Delhi on Wednesday. Credit: PTI/Subhav Shukla

The recently appointed (<https://thewire.in/181244/pm-modi-constitutes-economic-advisory-council-bibek-debroy-head/>) Economic Advisory Council (EAC) led by economist Bibek Debroy has a tough job in hand – to propel economic growth in a fashion that will create jobs. During the first quarter of 2017-18, India's growth rate has slumped to 5.7%

(<http://indianexpress.com/article/business/economy/india-gdp-growth-arun-jaitley-economy-4822775/>), a three-year low. The mainstream media has attributed this slowdown (<https://thewire.in/173429/demonetisation-needless-surgical-procedure-performed-unhealthy-economy/>) as an aftermath effect of demonetisation, implementation of the Goods and Services Tax (GST) and the slowdown in export growth. However, the underlying problem is more complex.

Per capita income in India is \$1,700 per year

(<http://www.livemint.com/Politics/oe9KuMQkAFGczsLQH7eR3H/Indian-economy-to-reach-5-trillion-by-2025-says-report.html>), which is around 16% of the world average. India's labour productivity – economic output per hour of work – is just 15% of the US levels. The case of falling productivity is slowly leaving behind an undesirable mark on India's export growth. For those who think that exchange rate factor is responsible for India's export slowdown, this is not entirely correct

(<https://thewire.in/176049/indias-export-slump-troublesome-rupee/>). This year, the Chinese yuan has appreciated against strong dollar by as much as 6% and yet Chinese exports are growing at an average of 8%. China is a good comparison, as both India and China compete in the world market in many price sensitive items such as apparels and leather footwear.

India's economy is being hit by a technology bug and that is more worrisome than anything else. Consider the following:

## Technology and investment

A closer look at data suggests that in India, gross fixed capital formation is falling. Growth in capital formation has fallen

([http://www.nipfp.org.in/media/medialibrary/2016/01/WP\\_2016\\_159.pdf](http://www.nipfp.org.in/media/medialibrary/2016/01/WP_2016_159.pdf)) from a

high of 17.5% during 2004-2008 to a lowly 4.3% during 2014-2016. A part of the fall in value of investment has to do with lower input costs. Technology has made sure that inputs come at a cheaper price. This has reduced the cost of private investment. Another part of investment slowdown has to do with the aftermath effect of stalled big infrastructure projects during the latter part of United Progressive Alliance (UPA) rule. The marginal value addition of government investment fell drastically during this phase. Rather than expediting stalled investment projects and tackling scams and corruption charges, the previous UPA government spent time on unproductive subsidies to woo voters, which didn't auger well with India's economic growth.

## **Technology and jobs creation**

During the last century, technology was complementing India's workforce by making it more productive. Electricity, combustible engines and refrigeration aided economic growth through a more productive labour force. Unfortunately, things are now different. In this age of big data analytics, machine and deep learning, machines are increasingly taking over jobs performed by humans. With technology changing at a rapid pace, no one knows where jobs of the future are coming from and what do they look like. US regulators have already approved smart pills that send highly accurate diagnostic information from inside the patient's body to doctors via Bluetooth. Computing power of a mobile handset is already equal to that of the human brain. Tesla has recently announced

(<https://www.theverge.com/2016/3/31/11335272/tesla-model-3-announced-price-release-date-specs-preorder>) bringing out an engine-less electric car that costs only \$35,000. This may change the entire dynamics of the automobile industry. A significant societal dislocation is waiting to happen. The government acknowledges this. Reacting towards the advent of driverless cars in India, road and transport minister Nitin Gadkari had said (<http://www.hindustantimes.com/india-news/won-t-allow-driverless-cars-that-take-away-jobs-says-union-minister-nitin-gadkari/story-JCDjBMoDQ4yzXrWv3ltxsK.html>), "We will not allow any technology that takes away jobs."

## **Technology and education**

This year, no Indian university was in the top 200 of the Times Higher Education World University Ranking

(<https://www.timeshighereducation.com/world-university-rankings/2017/world-ranking>).

This comes as a nasty surprise to those who believed in the prowess of India's scientific, technological and managerial manpower. The truth is that the curriculum taught in most Indian universities is stuck in the past, with little relevance to modern industry. Hence, fewer jobs are getting created, with less few graduates having the ability to execute. If corporates figure out that potential candidates do not have the power to execute or deliver, then the demand for hiring will be less. During 2015 and 2016, employment generation in the organised sector fell (<http://www.firstpost.com/business/where-are-the-jobs-mr-modi-2731002.html>) to less than two lakh jobs a year, which is less than 25% of the annual employment generated before 2011. Daily, less than 2% of Indians (<https://www.ndtv.com/india-news/indian-economy-on-very-solid-track-international-monetary-fund-imf-chief-christine-lagarde-1763045>) who apply for jobs get them. Presently, India (like elsewhere in the world) is slowly transforming into a gig economy where the labour market is increasingly characterised by the prevalence of short-term contracts or freelance work as opposed to permanent jobs. A study by KellyOCG, a global recruitment company, shows that (<https://economictimes.indiatimes.com/opinion/interviews/gig-economy-on-the-rise-in-india-fuelled-by-startups-peter-hamilton-kellyocg/articleshow/61108572.cms>) 56% of Indian companies have more than 20% of their workforce as contingent workers.

Recognising a sorry state of affairs and to make Indian universities world-class, the government has decided to give

(<https://thewire.in/187544/modi-10-universities-10000-crore-world-class/>)

autonomy and Rs 10,000 crore (around \$1,540 million) funding to India's top ten public universities as well as to ten private universities. A better idea would be to facilitate stronger linkages between India's universities and the private sectors. For instance, the UK government is promoting robotics, 5G wireless internet and smart technologies while asking private sectors to sponsor 300 master students and 200 doctoral students in artificial intelligence every year.



During the last century, technology was complementing India's workforce by making it more productive. Credit: Reuters

## Technology and agriculture

In India, farming is extensive rather than intensive. Indian farmers grow crops using more land, labour and animal inputs, rather than using technology. For a long period of time, output per hectare, a common measure of agriculture productivity, remained low in India. For example, in potato farming, the productivity of an Indian farmer is less than half of that of the US, Germany and Netherlands. In case of rice, it is less than half of that of the US and Egypt, and for wheat, it is less than half of that of the UK and Egypt.

The problem is aggravated as 83% of the farmers in India who are marginal and small farmers (someone with less than 2 hectare of landholding) do not have the wherewithal to understand technology. In fact, this has prevented many farmers from entering into contract farming with corporates such as ITC, Coca Cola, etc., as they were not sure about the quality aspect of the crop produced. Reforming agriculture sector cannot happen without embracing technology. Bottom line, farmers are not realising remunerative price and thanks to Minimum Support Price, prefer growing low yielding, less remunerative crops such as wheat and rice. With nearly 50% of the Indian population still earning their livelihood from the agriculture sector, a lower productive agriculture sector means an adverse income distribution.

## Technology and income distribution

New World Wealth, a Johannesburg-based company, published a report where it claimed (<http://indianexpress.com/article/india/india-news-india/indias-54-per-cent-wealth-controlled-by-millionaires-most-unequal-country-after-russia-report-3013286/>) that India is the second-most unequal country in the world, with millionaires controlling 54% of the wealth. In Japan, the most equal country in the world, millionaires control only 22% of the national wealth. Interestingly, in India with an uncertain business outlook and a falling interest rate regimes, a substantial portion of corporate and high/middle income savings are now finding its way to the stock market. Mutual funds investment through systematic investment plan (SIP) touched a record high (<https://economictimes.indiatimes.com/mf/analysis/sips-net-rs-5516-crore-in-september-mfs-adding-8-8-lakh-accounts-a-month/articleshow/61112233.cms>) of Rs 5516 crore (\$847 million) in the month of September 2017. For the first six months of the current year, SIP collections rose 45%, compared with the same period last year, to touch Rs 29,266 crore (\$4,500 million). Even now, less than 5% Indians participate in the stock market, flagging another reason for the rising income inequality.

With the agriculture-sector not performing well, the propensity to migrate from rural to urban areas is increasing. During mid-2000, construction sector in urban India came as a respite. It was able to absorb agriculture labourers as construction workers. But now, even the construction sector is not doing well. A concomitant rise in income with an adverse income distribution will give rise to a splintering effect where newer type of jobs such as housekeeping, security services, etc., will get created. This is a good thing as average income of the poor will also increase. What is worrisome is if this trend of income inequality continues to a level that is not sustainable. Naxalism is a case in point. As experience from Brazil suggests, a country that neglects rising income inequality cannot sustain its economic growth in the long term.

Technology, which is the key to raising productivity is here to stay. As much as 90% of increases in per-capita income come from (<https://www.technologyreview.com/s/531726/technology-and-inequality/>)

technological innovation. The EAC is too look for a strategy that will make technology inclusive.

*Nilanjan Banik (<https://thewire.in/author/nilanjan-banik/>) is a professor at Bennett University. He is author of the book The Indian Economy: A Macroeconomic Perspective.*

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