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INDIA 2030

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INDIA 2030

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India's Path to a $5 trillion Economy

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India will probably have a $5 trillion economy well ahead of 2030: the growth rate is guaranteed to be in excess of the roughly 6% compound annual rate required to move from about $3 trillion now to the target of $5 trillion, assuming exchange rates remain the same. However, the rupee is likely to harden against the dollar, once the volatility associated with recovery from the pandemic subsides, as productivity goes up in India faster than in the US, inflation stays well under control and capital flows continue at least as robustly as in the recent past.

In a globalised world, how fast an economy grows depends on the state of the world, to a large extent. Exports would drive growth, imports provide vital raw materials, intermediates, knowhow, plant and machinery. Global integration makes it possible for an economy to invest far in excess of domestic savings, particularly in forms that add significant value — think venture capital and private equity, which come with the added benefits such as support for new entrepreneurship, managerial expertise and linkages with other firms and resources that enhance growth.

Globalisation Grows Apace

Of course, for positive outcomes, the global economy must coast along reasonably well, with neither open conflict among nations nor economic disruption. Despite some recent reverses to globalisation, such as Brexit and the Trumpian phase of deviations from rules-based international conduct, globalisation is alive and, in fact, deepening. Global financial integration has been progressing, including between Wall Street and Shanghai, even as merchandise trade flows saw wobbles. The recent agreement among 136 nations, endorsed later by the G20, on a global tax compact that would mandate a minimum 15% rate of corporate tax and allow every country to tax a large, profitable multinational operating in its jurisdiction, even if without a physical presence, is further proof of globalisation's growing salience.

Combating climate change will force nations to cooperate on things big and small. Pooling knowhow and finance, so that rich countries would transfer technology and funds to low-income countries, would be one part of such cooperation. No less vital would be micro-level cross-border cooperation, such as America's Budweiser procuring near-zero-carbon aluminium cans from Russia's Rusal, even when the US and Russia are at geopolitical loggerheads.

Yes, there would be geopolitical rivalry, between camps led by the US and China. Unlike during the Cold War between the US and the Soviet Union, another factor is also at play in the tensions between the US and China: a large degree of economic interdependence. For some large American companies ranging from Apple and GM to Tesla, China is the largest market. Without the US as the destination for a large part of its exports, China would be a much smaller trader and producer than it is today. Therefore, geopolitical tensions will simmer in their own sphere, without spilling over into trade and commerce.

The developed world is ageing. That means fewer working-age people to take part in production, and more old folk to be supported. The savings the retirees have accumulated have to be deployed to establish a claim over the fruits of production — as tax, interest or profits. It is inevitable that such deployment of savings would make capital scour the world in search of higher rates of return. Relatively low inflation in the rich world means low interest rates and low rates of return on the safe debt instruments in which pension funds invest, raising the attraction for investment abroad to generate higher returns. The capital that turns footloose in search of higher returns would flow to India as well, in significant quantities.

Drivers of Growth

In the short-to-medium term, India has two major drivers of domestic growth. One is ago-processing, the other is urbanisation. Both will create immense value and millions of better-paying jobs and diversify the economic structure. Across the world, information technology services, healthcare and financial services would see paradigm shifts. Energy will be transformed by the compulsions of climate change, with a new emphasis on carbon removal from the atmosphere. Space technologies would proliferate as never before. In the aid of all these, advances would be registered in new materials, quantum computing and communications. India would be a major player and gainer in this comprehensive transformation.

India has finally laid power lines to virtually all non-remote villages, and the remote villages are being linked up to local micro-grids. Now, what remains to be done is to supply reliable daytime power to the villages. The obstacle that India has to overcome to achieve this feat is political rather than economic. India is unable to utilise the power generation capacity it has built up effectively, because of bankrupt politics that holds supplying free power or tolerating power theft the theft of power is a virtue. It is no body's case that there is no case for subsidised power supply to vulnerable sections of society. That subsidy should be explicitly recognised, and provided for in the state government's budget and the money transferred to the distribution utility, or, even better, to the target consumers, so that the utilities are able to pay for the power they buy, the generators can pay for the fuel they buy and the power system remains economically viable. This is not what happens today.

Once the power system is made financially viable, daytime power would reach villages and that would allow agroprocessing, including washing, sorting and cold-storage of perishable farm produce, to take off. Agroprocessing would spur further farm output, and enhance farmers' incomes. This would reduce poverty, improve nutrition and health levels in rural areas and greatly expand the market for industrial output.

Africa is the continent with the fastest pace of population growth today. That growing population is also seeing a rise in income levels. Africa's need for basic and superior foods would go up dramatically. Some of that additional demand would be met from local production. But a good portion could be exported from India.

India is already one of the world's largest agricultural exporters, even if flawed domestic policies make it necessary to subsidise sugar in order to make it competitive in the export market. Electrified rural India would make India a much more vibrant exporter of farm products. As rural prosperity drives up the demand for urban produce, and the world imports ever larger quantities of Indian software and information technology services, the industrial and organised service sectors of the economy would see dramatic expansion. As the demand for workers in these growing sectors is met, people would shift from village to town. No country in the world has prospered staying preponderantly rural. India would no longer live in its villages. China is already two-thirds urban. And India will inevitably climb on to that trajectory.

Urbanisation on Chinese or Indian scale does not mean steady streams of internal migrants moving into existing towns. They would be overcrowded into dysfunctional dystopias, were that to happen. New towns would have to be built. If 24 crore people move from village to town, that would call for some 20,000 sq km additional urban space, at a population density of 12,000 people per sq km. Building those towns, complete with their residential units, work spaces and accompanying amenities, such as schools, hospitals, malls, stadia and roads would unleash a building boom that would generate frenetic growth across the board.

The Digital Advantage

As digitalisation of finance, health, mobility, governance and even energy proceeds apace, the demand for information technology services would boom. There is no country that is as well placed to meet this demand as India is.

China might lead the world in the number and cash volume of digital payments. The European Union might think it has data regulation all wrapped up. But it is India that has pioneered the way for data to be used, with the consent of the data subject, for purposes that benefit the data subject. The Account Aggregator ecosystem, which became operational only recently, activates yet another of the multi-layered, mutually reinforcing technological applications that were envisaged when India rolled out Aadhaar in 2010, along with a collection of Application Programming Interfaces that Nandan Nilekani, who stewarded the project, dubbed India Stack. The DigiLocker and the Unified Payment Interface (UPI) are also products of the India Stack APIs. An Account Aggregator would allow a company to share its financial data, sourced from other companies it interacts with, the Goods and Services Tax Network and the banks and non-banking companies it borrows from, with several potential lenders, who could then analyse the data to determine the credit eligibility of the data subject. Of course, India is yet to pass a law on data protection, but the framework for secure and revokable sharing of one's data with permitted entities is operational.

This should, in the months and years to come, give Indian fintech and data analytics companies, a big edge over economies that regulate data privacy without a secure means of sharing that data with entities that can analyse that data to the data-subject's profit. A similar effect can be achieved with health data as well.

In modern, gene-based therapies and vaccines, India is still a bit player. However, the potential for India is huge. This is because India has the largest pool of young people who can take up STEM subjects (science, technology, engineering and mathematics) and innovate, based on current knowledge. India is already the world's largest vaccine producer by volume, if not by value. By investing wisely in synthetic biology, bioinformatics and pure genetics, India can secure for itself a largish chunk of real estate in emerging areas of therapies and vaccines.

Of course, India has to cross many hurdles. The education system produces quantity and not quality. Healthcare is lousy for the most part, although some of the finest healthcare facilities can also be found in India. Medical technology startups like Glocal, which has listed on Nasdaq, merging with two other companies and a SPAC, will inspire yet more innovative companies in that space. But improving public health and public education is a question of getting government priorities right and of the government achieving the requisite tax-and-spend capabilities.

India manages to collect about 17% of GDP as tax, about half the average for the OECD. This must change. The implementation of the Goods and Services Tax is a vital first step in the journey towards efficient taxation. The multiple audit trails it automatically generates must be followed up and analysed to expand the tax base. The political will must be found to complete the journey.

Pitfalls of Divisive Politics

The biggest challenge for India is, of course, getting its politics right. Too often, political parties find it easy to mobilise votes by pitting one section of the people against another. Sectarian solidarity, secured on the basis of hostility towards another group, will weaken social and political cohesion in the long run, even if it brings short-term rewards for those who play this game of divide and rule.

If India can avoid this pitfall and fashion a politics based on inclusion and better ideas for development, India's growth process would be smoother and faster, and India would reach the $5 trillion mark with relative ease.

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LSI Financial Services Pvt. Ltd. was established in 1997 and is a SEBI registered Category 1 Merchant Banker. The vision of the company is to provide services relating to Project Finance Advisory, Techno Economic Feasibility Study, Financial Restructuring and Asset & Equity Valuation to esteemed Financial Institutions and corporate houses. With senior bankers and eminent industry experts, who are supported by 150 professionals in the team, the company has gathered vast experiences in almost all the sectors in the last two decades.

LSI has empowered more than 200 large corporate houses in India with its bouquet of financial solutions. Today LSI is present across the major Tier I and Tier II cities of country.

The company in addition to its focus on debt syndication, Issue Management, PE Advisory, & M&A Advisory, lays significant stress on creating knowledge pools on economically important topics.

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Project Appraisal	Financial & Technical Appraisal	Qualitative Appraisal	Appraisal for Land Allotment

LSI RESOLUTION

Resolution & Insolvency Division	IPE Services	Process Advisory Services	Liquidation Advisory Services

LSI ENGINEERING & CONSULTANTS

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AGENCY FOR SPECIALISED MONITORING (ASM)

RESOLUTE VALUERS & CONSULTANTS

Valuation	Asset Valuation	Equity Valuation	Enterprise Valuation

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INDIAN ECONOMY

A ROLLER COASTER RID

1970 - 2030

It has been a truly roller coaster ride for Indian economy since 1970. From a strictly regimented economy to a caged tiger, restlessly trying to unshackle itself, from there to a liberalised one and from there to a potential economic super power and again from there to an economy that was nosediving — Indian economy has gone through all these. Being fundamentally resilient, Indian economy could survive all these ups and downs. Every time it had hit the rock-bottom, it eventually emerged stronger. And now, even as the pandemic crippled the global economy, there are reasons to be positive and optimistic about the Indian economy, riding on its inherent strengths such as a large and strong domestic market, demographic dividends and so on

In throes of an unprecedented global pandemic, FY21 began on a lacklustre note with India as well as several world economies in an extended lockdown. This has impacted the underlying demand/supply dynamics and is expected to have an adverse impact on economy and corporate earnings. A majority of India Inc has been working from home for several months now, due to the pan-India lockdown enforced by the government as a precautionary measure to curb the spread of COVID-19. All these happened when Indian economy was nurturing a $5 trillion dream. If a population of nearly 1.3 billion is locked down in their homes that would certainly have various implications of that. And it does not require any rocket-science to understand that.

Many years ago, Henry Ford said that when everything seems to be going against you, one must remember that the airplane takes off against the wind, not with it. One must remember that with adversity comes with an opportunity.

Before we come to that unthought of, unheard of and uncalled for development in the annals of Indian economic history (or for that matter, global economy), and how India is striving hard not only to come out of this but make up for the losses and move to the next level, a quick recap on India's growth story (movement of the Indian economy and some key trends) during 1970- 2010, 2010-2019 and beyond.

INDIA'S GROWTH STORY
1970-2010

India, by all stretch of estimations and imagination, is certainly one of the fastest transforming economies in the world. This has been possible because of the globalization of Indian economy, on the one hand, and thanks to world economy integrating itself, on the other. According to HSBC's Emerging Market Index, 2020, India's economy expanded more than China's. India's composite index stood at 54.8, whereas for China it is 51.4. Many economists think that India has to concentrate on its driving sectors of growth.

Many economic studies found the presence of a long term relationship between investment, exports and the economic growth of India. These studies have also shown that only domestic investment significantly contributes to economic growth- both in the long run and in the short run. Economic think-tank and policy makers think that India should continue to keep its focus on domestic investment, while diversifying investment towards promoting export sector through investments in infrastructure.

Statistically, Indian economy had been experiencing a modest economic growth since the decade of seventies. The annual compound growth rate of the gross domestic product (GDP) for the period 1970-71 to 2007-08 was 5.58 per cent. Interestingly, domestic investments always played a crucial role in India's growth process. The annual compound growth rate of domestic investment measured by gross domestic capital formation (GDCF) was 7.64 per cent for the period 1970-71 to 2007-08. The economic growth of India has been for the most part of this period facilitated by domestic savings and investments. GDCF as a percent of GDP more than doubled from 15 per cent to around 38 per cent during the period. Mind you that these investments in the form of GDCF have led to a rise in the country's production and output, measured in terms of GDP. This clearly reflects implication of neo-classical growth models. These growth models emphasize the importance of savings and investments for economic growth.

Some economists think that this rise in savings and investment was the most important macro-economic development in India since 1970s, while another school of thought advocates the need of enhancing investments for supporting higher growth rates. Investment may be a necessary condition for sustaining

economic growth, but that's not sufficient. And investment beyond a level makes investment led growth strategy unsustainable. That's because it leads to excess productive capacity which further leads to deflation, financial instability and unemployment, thereby hampering growth as it happened in East Asian countries before the East Asian economic crisis of 1997.

Then came the economic liberalisation or economic reforms of 1991 under P V Narasinmmha Rao and Dr Manmohan Singh and subsequent measures, which dismantled the licensing system, reduced tariffs, phased out various quantitative restrictions prevalent earlier, made the exchange rate system market-based and liberalized capital inflow. There is no denying the fact that these reforms transformed the Indian economy from an inward looking economy promoting import substitution policies to an outward looking economy actively practicing export promotion policies. The growth rate of GDP for the pre-liberalization period (1970-71 to 1989-90) was 4.46 per cent which increased to 6.3 per cent in the post reform period (1990-91 to 2007-08).

Thirty years ago, in 1991, India found itself battling its most critical economic and currency crisis ever. Fortunately, however, after economic reforms and subsequent to adoption of the policy of LPG (Liberalization, Privatization, and Globalization) Indian economy performed well. Then again thanks to the global financial crisis of 2008, Indian economic growth got interrupted and the economy went through another turbulent phase.

Indian economy had undergone sea changes in the 90s and between 2000 and 2010, courtesy the economic liberalization in the country. This rejuvenation actually took place in the whip of balance-of-payment emergency. The then central government allowed private infusions in Indian market which facilitated monetary infusion from FDI and FII.

That's not all. The period between 1991 and 1992 was a defining moment in India's modern economic history. Because it was during this period, a severe balance of payments (BOP) crisis prompted far reaching economic reforms, unlocking, in the process, its growth potential. India had foreign exchange reserve that was sufficient only for two weeks. With current reserves of about $290 bn, the economy could meet its import requirements of nearly seven months only. India's domestic savings rate had gone up from 20 per cent of GDP to 31.6 per cent during this intervening period. However, the overall economic environment in the global arena was favourable at that time. There is no doubt that now we are quite integrated with the global economy. This, in turn, has increased our vulnerability to external shocks, tremendously.

The introduction of economic reforms in the early 90s saw India gradually breaking free of the low growth trap. Interestingly this low growth trap had been euphemistically branded as the "Hindu growth rate", which stood at 3.5 per cent per annum. Significantly, India's real GDP growth rate was 5.7 per cent per annum, on an average in the 90s. This accelerated further to 7.3 per cent per annum in 2000s.

Quite interestingly, the growth dynamics changed the structure of the Indian economy with a decline in the share of agriculture from 28.4 per cent in the 1990s to about 15 per cent in 2009-11. Significantly, there was also corresponding gain in the share of services, including construction, from 52 per cent to 65 per cent during the same period.

The period 1991-1992 was a defining moment in India's modern economic history. It was during this period, a severe BOP crisis prompted far-reaching economic reforms, unlocking, in the process, its growth potential

True, the share of industry in GDP had remained stagnant during this period. But, there was structural transformation in manufacturing sector over the period. With the process of restructuring being in place, the gross value added in organized manufacturing increased by eight per cent per annum at current prices, while employment fell by 1.5 per cent per annum during 1995-2003. Subsequently, during 2004-09, gross value-added growth paced up to 20 per cent per annum at current prices. Significantly, however, employment also moved up by 7.5 per cent per annum. India had a workforce of 400 million in 2009-10, with a work participation rate of 39.2 per cent. Of this, 53 per cent was in agriculture and the remaining 47 per cent in non-agricultural activity. It is true that the bulk of the employment is in agriculture despite its shrinking share. However, one must keep in mind that one of the noteworthy features of the employment structure has been that for the first time the absolute workforce in agriculture dropped in the latter half of the 2000s. The overall unemployment rate in the economy also dropped down from 8.3 per cent in 2004-05 to 6.6 per cent in 2009-10. The share of industry had remained unchanged at around 20 per cent of GDP. This was certainly an area of concern. This suggests that India's growth acceleration during the last two decades had been dominated by the services sector. Nevertheless, the pace of average annual industrial growth had picked up from 5.7 per cent during the 1990s to 9 per cent during 2004-08, before being interrupted by the global financial crisis.

INDIAN ECONOMY 2010-2019

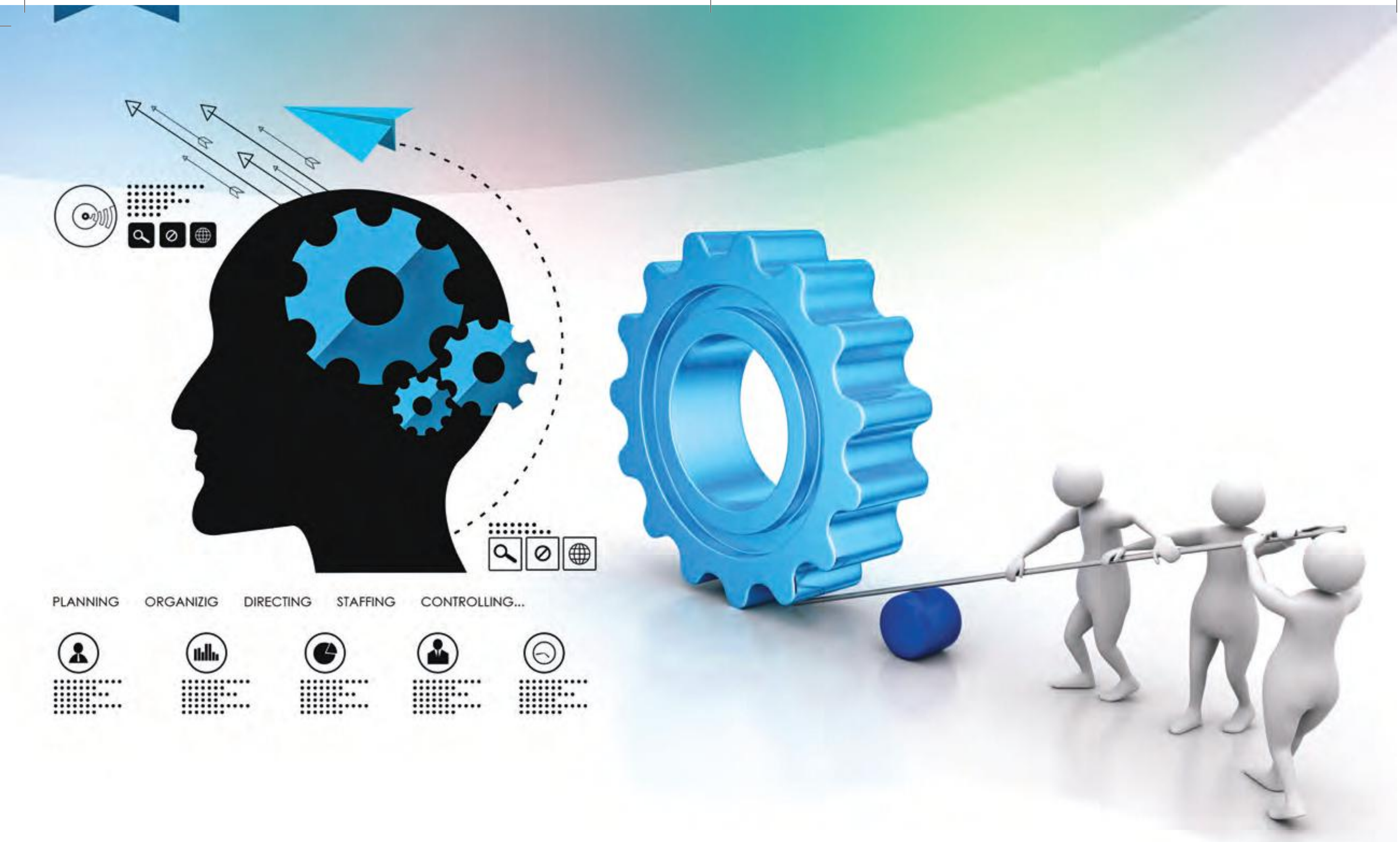
The real GDP growth in India reached its peak in March 2010, when it scaled 13.3 per cent. Since then, the downward trend is evident and the Indian economy is now scraping the bottom at about a real GDP growth rate of 4.5 per cent, this too with the push of an arguably inflationary methodology. There are some economists who think that India's GDP growth is overestimated by at least 2.5 per cent, while there are some other, who are even more pessimistic and estimate growth to be 1.5 per cent.

Quite significantly, in 2010, agriculture contributed 17.5 per cent of GDP, while industry contributed 30.2 per cent and services 45.4 per cent. Nine years down the road, agriculture fell to 15.6 per cent, industry to 26.5 per cent and services to 48.5 per cent. The share of industry had all along been sliding during this period. This, according to many, is the typical profile of a post-industrial economy.

When it comes to capital investment, one can clearly see a significant decline. In 2010, it was 39.8 per cent of GDP and is now a good 10 per cent lower. There is no doubt whatsoever that unless there capital investment rises, one cannot hope for more industrialization and hence higher growth. However, we have seen huge growth in services sector in this decade.The savings/GDP ratio, another crucial economic parameter, has been in a declining trend since 2011 and it could not be reversed. As a consequence, the tax/GDP ratio and the investment/GDP ratio had also been on a downslide. The drivers of economic growth such as capital expenditure was nothing to write home about either. Bank-funded projects came down by over half since 2014 to less than Rs.600 billion in 2018-19. All projects that had been funded by the market, hit the rockbottom. Subsequently the manufacturing/GDP ratio went down at 15 per cent. Corporate profits/GDP ratio also went down to a 15-year low at about 2.7 per cent. Mind you that India cannot have adequate job creation if these are dipping. Declining rural labour wage indices testify to this. One has to keep in mind that growth rates had also gone down globally in the post-economic crisis period. The world economy had not been able to achieve its pre-crisis growth trajectory even a decade after the 2008 financial crisis. China, which had been growing in double digits, grew at just 6 per cent in 2018. India's GDP growth in 2018-19 (in constant rupees) was 6.8 per cent, the lowest since 2014-15. Most institutional and private forecasts, including that of the RBI, had seen the Indian economy growing at five per cent, or perhaps even less in 2019-20. One also has to keep in mind that the low growth phase during the beginning of this decade was accompanied by double digit inflation. If one looks at core inflation i.e. inflation without food and fuel, it would be even more different.

Panic buttons were pressed in the early years of this decade with fears of stagflation – a low growth high inflation phase. And as the decade drew to an end, there were threats of a recessionary trend – a low growth low inflation phase.

By that time, the basic constraint facing the economy has moved from a supply side one to a demand side one. High inflation in an economy can be attributed to its inability to meet the demand for goods and services being used for economic activity. Interestingly, the reverse holds good when inflation starts going on a downslide, when economic agents- both consumers and producers (who also buy raw materials, etc) are not buying enough to clear the supply in the market. There is a belief therefore, that core inflation trends are a better metric of the supply versus demand side constraint in an economy, as it is immune from seasonal shocks to agricultural production.



What was even worse was that yearly export growth of India in dollar terms in the decade was mostly above the 20 per cent mark, it has more than halved for most parts of the decade. This almost destroyed one of the important growth engines for the Indian economy.

Let us now consider some other crucial economic parameters and related statistics.

The fiscal deficit for 2018-19 stood at 3.39 per cent of GDP, marginally lower than 3.4 per cent estimated in the revised estimates of the Union Budget, primarily due to increase in non-tax revenue and lower expenditure.

GDP: The Indian economy grew by 6.7 per cent per year between 2009-10 and 2013-14. However, one must keep in mind that India has been adopting a new way of calculating the GDP since January, 2015. As per the new series (2011-12), the growth recorded at that time crossed double-digit to reach 10.08 per cent. In terms of market prices, the highest GDP growth was at 10.78 per cent in 2010-11.

India's GDP growth for the three months ending September 2019 (Q2FY20) dropped to 4.5 per cent, down from 5.0 per cent in the previous three months and 7 per cent for the corresponding period of 2018, thanks to further weakening of consumer spending and private investment weakened and a global slowdown, which impacted exports growth. The previous lowest was 4.3 per cent as recorded for the January-March quarter of 2013. India's economic growth fell for the sixth quarter in a row.

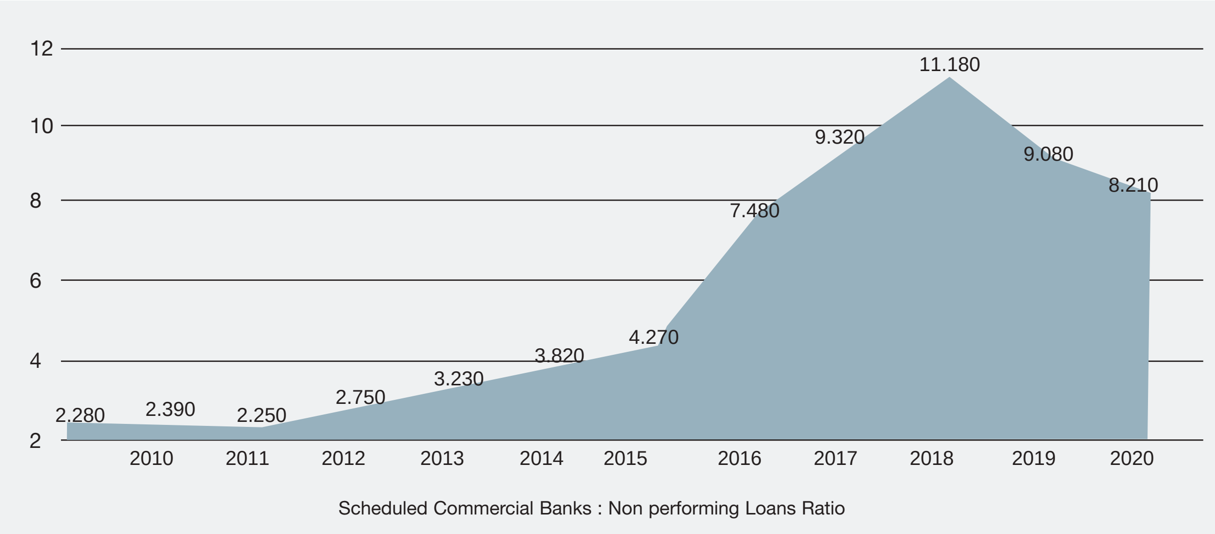
The saving to GDP ratio has been heading southward continuously since 2011. The average rural wage growth came down by 3.1 per cent in 2019. With investment fallikng by 1.1 per cent in the last quarter, the investment-led slowdown has turned into a consumption-led slowdown. India's exports fell by 1.1 per cent in October and the low rural income has slumped consumption.

FPI: Foreign portfolio investors (FPIs) began to bet big on Indian equities and total FPI inflows reached the ₹ 1 lakh crore mark for the fourth time ever and for the first time since 2013. FPIs were net buyers at a little over ₹ 1 lakh crore in that calendar year, according to data from the National Securities

Depository Ltd. (NSDL), the highest since 2013 when they had bought net Indian shares worth Rs 1.13 lakh crore. FPIs had been net buyers at more than Rs 1 lakh crore in a calendar year only on four occasions – 2019, 2013, 2012 and 2010. FPIs registered the highest single-year flows in 2010-at Rs 1.33 lakh crore. Significantly, 2019 will go down in history as a year when both Sensex and Nifty clocked record highs. Nifty50 rose nearly 13 per cent this year. Notwithstanding the fact that Nifty50 gained nearly 9 per cent during 2010-2019, deprecation in the rupee made the dollar return for the index unimpressive to just 4.2 per cent.

Bank NPA: In March, 2010, the bad loans of public sector banks together stood at Rs 59,972 crore. In March, 2014, the NPAs were at 4.4 per cent compared to 2.09 per cent in 2008-09. It is pertinent to mention here that the gross NPAs in 2014 went up by nearly four times from March 2010. Gross NPAs of PSBs dropped from Rs 8.96 lakh crore in March 2018 to Rs 7.27 lakh crore in September 2019, going by official figures. As many as 19 public sector banks in India posted losses in 2018-19, and of

INDIA'S NPA LOANS RATIO FROM 2010 TO 2020



Source : WWW.CEICDATA.COM, RBI

them, 13 banks have returned to profitability in the first half of 2019-20. The gross NPAs came down to 9.1 per cent in March 2019 from 11.2 per cent in 2018.

Inflation: Talking about India's retail inflation (Consumer Price Index), it jumped to a 3-year high at 5.54 per cent for the month of November, 2019, while the industrial production (IIP) data for October contracted to 3.8 per cent as per the data released by the National Statistical Office (NSO) on December 12, 2019. In November, 2010, India's retail inflation had stood at 0.55 per cent.

COVID 19 PANDEMIC

The outbreak of COVID-19 did not spare any economy anywhere in the world. The impact has been enormous. Especially the nationwide lockdowns had brought social and economic life to a standstill.

A joint report by the WHO and the World Bank in 2019, estimated the impact of such a pandemic at 2.2 per cent to 4.8 per cent of global GDP. The whole world got engulfed by this crisis and India was no exception.

Another report titled 'COVID-19 and the world of work: Impact and policy responses' by International Labour Organization (ILO), explains that the crisis eventually got transformed into an economic and labour market shock. The shock did not only impact supply (production of goods and services) but also hit hard demand (consumption and investment). It is pertinent to mention here what the International Monetary Fund's (IMF) chief, Kristalina Georgieva, said in this context. She said that the world is faced with extraordinary uncertainty about the depth and duration of this crisis, and it was the worst economic fallout since the Great Depression. Going by the IMF estimates, the external financing needs for emerging markets and developing economies would run into trillions of dollars. India too has been groaning under the yoke of the pandemic and as per news reports in Economic Times published on March 23, 2020, the economists are pegging the cost of the COVID-19 lockdown at $120 billion or 4 per cent of the GDP. You name a sector, and the COVID-19 pandemic did affect it— the manufacturing and the services sector — hospitality, tours and travels, healthcare, retail, banks, hotels, real estate, education, health, IT, recreation, media, to mention a few. For many, the economic stress that we get to see is just the beginning and will grow rapidly. While lockdown and social distancing resulted in productivity loss on the one hand, on the other, they certainly caused a sharp decline in demand for goods and services by the consumers in the market. This, therefore, led to a collapse in economic activity. One, however, has to keep in mind that lockdown and social distancing were the only cost-effective tools available to prevent the spread of COVID-19.

Impact on Tourism, Aviation and Retail

The tourism industry is one of the worst affected sectors-globally, in the wake of the pandemic. The World Tourism Organization (UNWTO) (2020) depicted a fall of 20–30 per cent in international tourist arrivals. Mind you that these figures were based on the circumstances, when the estimations were made and therefore are bound to increase or decrease in the days to come. Millions of people associated with this industry have already lost their jobs and many more will follow suit. In India, the travel and tourism industry had otherwise been flourishing and had been contributing sizably to the economy. It is important to know how the sector had been performing when the downfall began. The FICCI-Yes Bank report titled 'India In-bound Tourism: Unlocking the Opportunities' had aptly described India as a tourism powerhouse and the largest market in South Asia. In 2018, tourism had accounted for 9.2 per cent of the country's GDP and had generated revenues to the tune of $247.3 billion in 2018. That's not all. The industry also created 26.7 million jobs. If the pandemic had not broken out, the sector, by 2029, would have provided employment to nearly 53 million people. Foreign Tourist Arrivals (FTAs) had crossed 10 million in 2017. However, the pandemic restricted international mobility and the revenues generated by this sector will take a major toll on the GDP growth rate. It may bring down the GDP growth rate by 0.45 per cent.

The aviation sector in India, on its parts, contributes (or was contributing before the pandemic) $72 billion to India's GDP. Foreign tourist arrival came down substantially in the first quarter of 2020. The overall size of the Indian retail industry was estimated to be $790 billion in FY 2019. It accounted for over 10 per cent of India's GDP and nearly 8 per cent of overall employment. In the past few years, preceding the pandemic, online retail had seen a very rapid growth and the market projections had indicated a 30 per cent growth in online retail in 2020. Experts think that in the retail sector, the suppressed demand always has a tendency to revive very fast. And that tendency might enable the sector to recover the losses once the normalcy is restored. Interestingly, online retail was operational in many parts of the country even during the lockdown period and this might come in handy to offset some of the losses for the industry.

Impact of COVID-19 Pandemic on Migratory Labour

The International Labour Organization (ILO), in one of its recent report, described the coronavirus pandemic as 'the worst global crisis since World War II'. Nearly 76.2 per cent of the total workforce — 400 million people, in absolute numbers, working in the informal economy in India are at a risk of falling deeper into poverty due to catastrophic consequences of the virus. As half of the world is under lockdown, it is going to be a loss of 195 million full-time jobs or 6.7 per cent of working hours globally. Many are in low-paid, low-skilled jobs where sudden loss of income is catastrophic, according to ILO.

In rural India, seasonal migration of labour for work is a pervasive reality. Under normal circumstances, a migration of millions of people happens from rural areas to industries, urban markets and farms. There are some major migration corridors in India — from UP and Bihar, to Punjab, Haryana, Maharashtra and Gujarat and newer corridors like- from Odisha, West Bengal and North East to Andhra Pradesh and Karnataka, from Rajasthan to Gujarat, from MP to Gujarat and Maharashtra and from Tamil Nadu to Kerala. These migrant workers are mostly employed in the construction sector (40 million), domestic work (20 million), textile (11 million), brick kiln work (10 million), transportation, mining and agriculture. During lockdown, as high as 92.5 per cent of labourers lost 1 to 4 weeks of work.

Capital Markets, Global Oil Market and its Impact on India:

The pandemic sent shock waves across global financial markets. Indian capital markets were envisaging a funds flow to Western capital markets, thanks to rate cuts and fall in the stock markets the world over. As per the NSDL data, Foreign Portfolio Investors (FPIs) had withdrawn huge amounts from India — ₹ 247.76 billion from equity markets and ₹ 140.50 billion from debt markets in a short span of 13 days- between March 1 and March 13, 2020.

Impact on Start-Ups and Micro, Small and Medium Enterprises

MSME (Micro, Small and Medium Enterprises), which have created more than 90 per cent of the jobs in India, employing more than 114 million people and contributing 30 per cent of the GDP, are at the risk of having a severe cash crunch, in the wake of the pandemic and lockdown. Many of these MSMEs operate with some loan obligations or the other. They often have monthly EMIs to pay.

Many of them might just cease to exist if their cash cycle is disturbed because of the lockdown. Because fixed costs would otherwise dangle over them in such a situation. They needed a moratorium for loan repayments. RBI did release some funds to non-banking financial corporations, some of whom provided finance to MSMEs. Besides, movement of perishable goods was severely hampered and thus, these businesses are likely to incur huge losses.

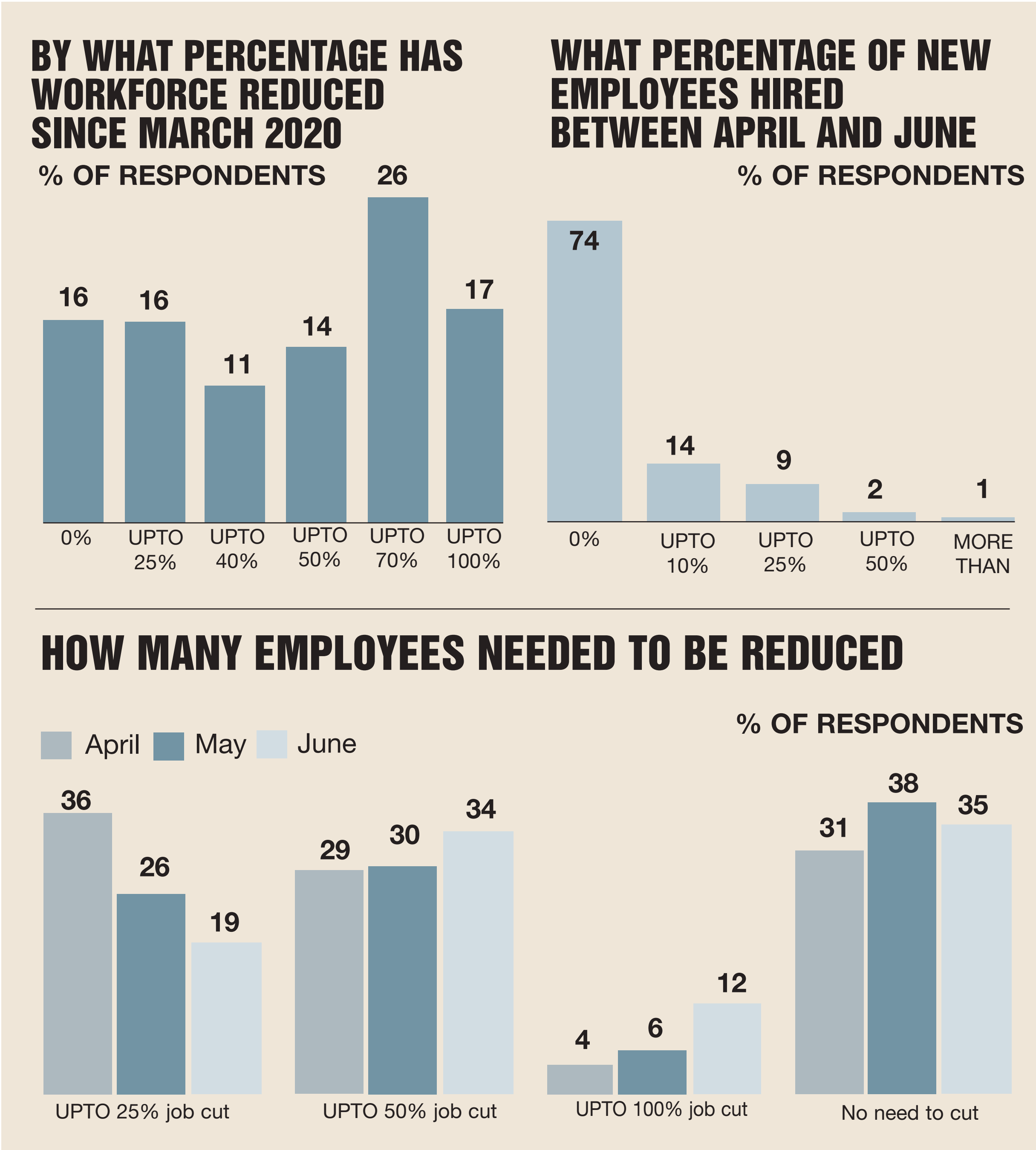
There is no doubt that without a thriving MSME sector, India cannot have a real and sustainable growth. The resilience of start-ups in India will also be tested in the process. Start-ups have to rely on cross-border fund raising. For these MSMEs, receivables from different quarters are piling up and they have to undertake painful cost-reduction measures in their ventures. The government will have to make sufficient funds available for this sector, by all means, as venture capital firms may take a little longer to rise to the occasion, thanks to the restricted global capital flows.

The prolonged lockdown and continuance of the pandemic distorted the world's thriving economy in and unpredictable and ambiguous terms. Significantly, it also indicated that the current downturn is seemingly different from recessions of the past which had jolted the country's economic order. The countries, conglomerates, corporations and multinationals will have to understand the magnitude of the pandemic and they are doing that. It is high time to prepare for a future that is not only sustainable, but also structurally more viable for living and working.True, the unprecedented situation has caused a huge damage to the economy, particularly during periods of lockdown, but India will have to work its way through it, by introduction of fiscal measures. As the Union government envisions, protection of both lives and livelihood is required. The economic activity must begin gradually through a thorough screening of the labour force.

The initial 10-week lockdown saw the economy operate at about half of full capacity, by its estimates, with significant strain on micro, small, and medium-size (MSMEs) businesses and large corporates. McKinsey estimates suggest that the financial strain on households, MSMEs, and corporates, if unmitigated, would increase the level of non-performing assets by 7 to 14 percentage points in fiscal year 2021. Unemployment rose to an all-time high of over 20 per cent in the first two months of the first quarter of fiscal year 2021, although it fell significantly to about 10 per cent in the third month.

The good thing is that the government responded promptly with a package of liquidity and fiscal measures to stabilise the economy in the short term, to support low-income households, farmers, MSMEs, and the financial system.

MSMEs, across domains, have shown a significantly positive shift towards the e-commerce ecosystem, post pandemic. There is no doubt that e-commerce was one among the pillars that helped MSMEs sustain and survive the negative winds of the Covid-19 pandemic. That's not all. There are many MSMEs who manufacture high quality products, and are ready to compete with China on price



Source : SKOH GROUP, Federation of India Micro, Small and Medium Enterprises (FISME); Bhartiya Vitta Salakhar Samiti and Tax Law Educare Society (TAles)

points. This is a significant chance for India to become the contract manufacturer of the planet. Rural India is essentially un-touched by most MNCs and yet it operates quite well! It's only now that a lot of parts are becoming accessed. Thus creating small 'sustainable cells' out of existing villages are going to be an excellent option. When most of the people were locked inside their homes, thanks to the lockdown-related restrictions to curtail the spread of coronavirus, it had been e-commerce that came to the rescue of the MSME businesses. And that's because the trade houses kept running by shifting

businesses online. Stores went online to supply services to their customers and continued to earn a minimum of some amount of cash to manage the essential expenses.

The offline to online shift i.e. entry into the e-commerce ecosystem by MSMEs is one among the most important silver linings of the whole coronavirus episode.

Consider this also. People are now using vegetable oil rather than vegetable/mixed oils to cook traditional Indian meals, consuming less sugars and fats; and indulging in foods which supply more vitamins, minerals, proteins, etc. Immunity boosting food products also will be in high demand. What we'll see may be a rise within the nutraceuticals industry altogether, as consumers' preferences are drifting faraway from consuming pharmaceutical products thanks to their side effects. Indians are always known for technological and pharmaceutical innovation. Innovation mainly within the digital space and Medtech will help harness truth potential of India. MSMEs won't only enjoy this but will have the chance to become trend-setters globally.

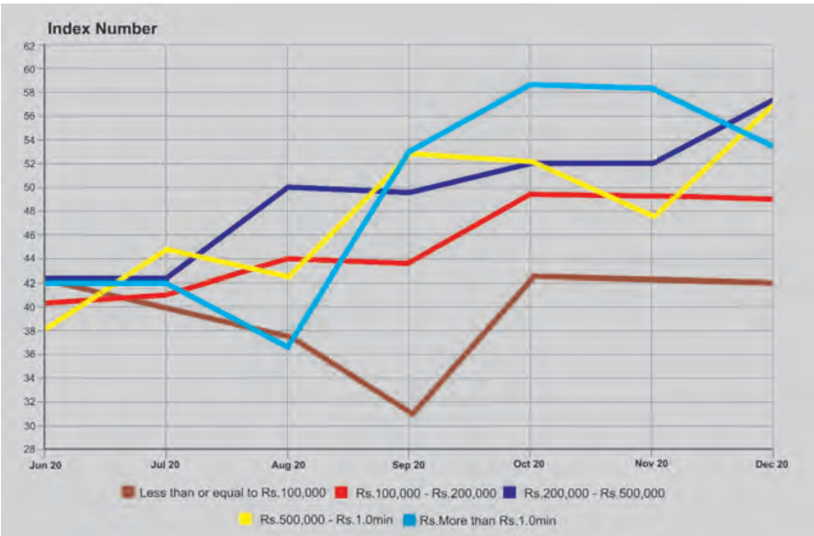
COVID IMPACT ON MSME

- 79 per cent of the MSMEs are negatively impacted by COVID-19 crisis
- 24 per cent MSMEs are operational now
- 18 per cent of running MSMEs are operating at less than 50 per cent capacity
- 7 out of 10 businesses have witnessed significant decline in customer foot falls/enquiries
- 5 out of 10 businesses would run out of their working capital within two months they will depend on loans from peers/friends/family to survive
- 7 out of 10 Manufacturing businesses are unlikely to procure raw materials for the next one month
- 6 out of 10 businesses are uncertain about their business financial health for next two weeks
- 9 out 100 businesses are expected to lose 100 per cent of their revenue during the next two weeks or so

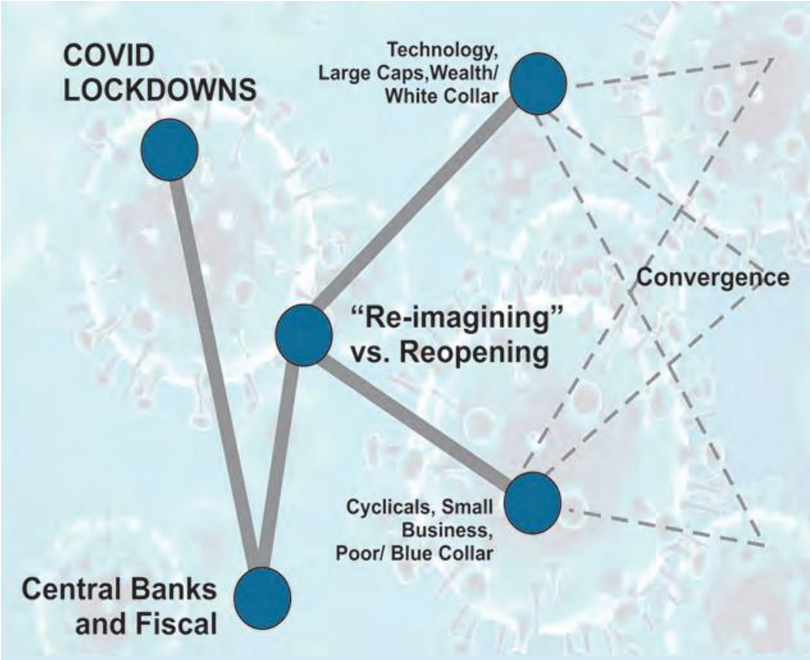
Source :Kantar Report

V or K-shaped recovery

Amidst debates and discussions on whether India is witnessing a V-shaped or K-shaped recovery, let us first look at what do V-shaped recovery and K-shaped recovery mean and then get into finer details.



When a quick and sustained recovery in different parameters of economic performance takes place preceded by a sharp economic downturn, it is called a V-shaped recovery. And when different parts of the economy recover at different rates, times, or magnitudes, following a recession, it is known as a K-shaped recovery, in economic parlance. This is completely different from an even, uniform recovery



across sectors, industries, or groups of people.

During a K-shaped recovery, one can see a growing gap between 'winners and losers'. A healthy stock market at a time when millions have lost their jobs, is a typical case in point in India. Having said that, it is important to keep in mind that the economy and stock market are two completely different entities. Stock market participants form a minuscule percentage of the total participants in the economy, especially in a country like India. It is also pertinent to mention here that a K-shaped economic recovery begins with the eventual decline but the path to recovery for the economy is split into two. Recently, the latest readings of the Nomura India Normalization Index (NINI) (Nomura Services India Private Limited, an arm of Nomura Holdings Inc, is a consumer services company) suggested that the Indian economy is staging a comeback through a K-Shaped Recovery.

INDIAN ECONOMY 2020-25

Pandemic may have been contained well, but India's economy will have to deal with its aftermath-with irritants like stressed corporate balance sheets, elevated non-performing assets (NPAs) of banks, the fallout in non-bank financial companies (NBFCs), and labour market weakness, to mention a few. Therefore the fear that India's post-COVID-19 scars could be among the worst in the world, cannot be pooh poohed altogether. Consider what Oxford Economics has to say. The global forecasting firm recently revised its India growth forecast downwards over the medium term to an average of 4.5 per cent over 2020-25, from its pre-pandemic projection of 6.5 per cent.

The study said that an adequate and well-designed fiscal stimulus would certainly reduce this impact to half by limiting the deterioration in pre-COVID-19 headwinds. But, given the low likelihood of such a comprehensive response, it has projected India's GDP per capita to be 12 per cent below its pre-virus baseline even in 2025. This implies the largest amount of scarring among the major economies, globally. Despite having one of the most stringent lockdowns globally, India's direct fiscal response to COVID-19 so far amounts to just 2.5 per cent of GDP, with a large majority of the overall fiscal package of $230-billion, earmarked for liquidity and financing support schemes.

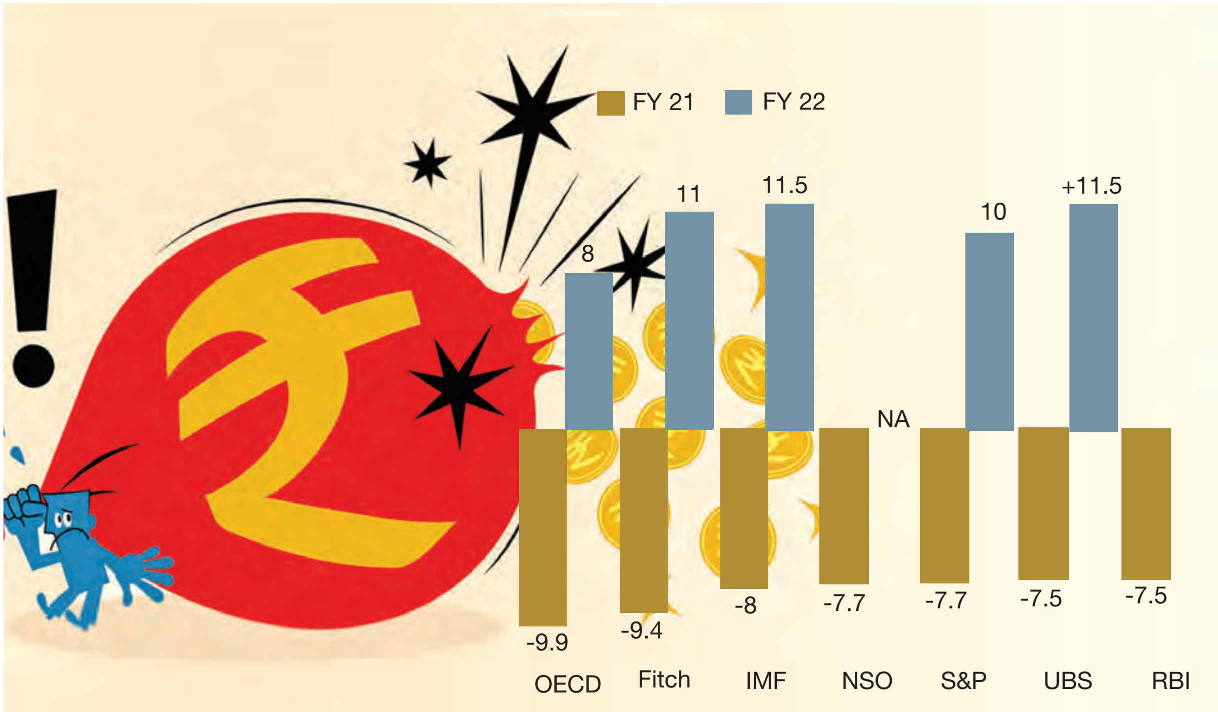
But Oxford Economics is just one school of thought. Others like Moody's Investors Service, on its parts, raised India's growth forecast to (-) 10.6 per cent for the FY 21-22 from its earlier estimate of (-) 11.5 per cent. The study said that the latest stimulus prioritises manufacturing and job creation and shifts focus to longer-term growth.

Signals of optimism are also visible in the latest report of the Centre for Economics and Business Research (CEBR), a leading economic think-tank. India may have been apparently pushed back to the position of world's sixth-biggest economy in 2020, but it will again overtake the UK to become the fifth-largest economy in 2025 and move up to the third spot by 2030, according to CEBR.

That's not all. CEBR predicted that the Indian economy would expand by 9 per cent in 2021 and by 7 per cent in 2022. As India becomes more economically developed, growth rate will, understandably, slow down. The annual GDP growth may actually sink to 5.8 per cent in 2035. Indian economy would overtake Germany in 2027 and Japan in 2030, the UK-based think-tank projects.

India is the fourth-largest unicorn base in the world with over 21 unicorns collectively valued at $73.2 billion, as per the Hurun Global Unicorn List. By 2025, India is expected to have nearly 100

> NEW PROJECTIONS OF GDP FY21 & FY22



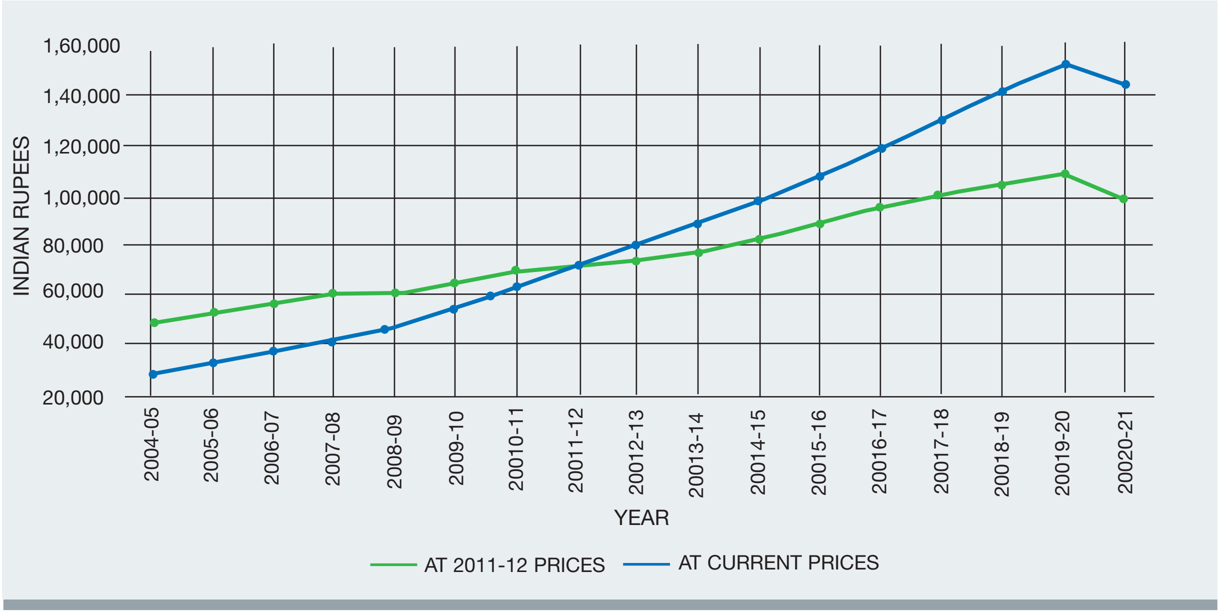
Source : NSO, RBI, IMF, Fitch ratings, OECD, S&P and UBS

unicorns and will create nearly 1.1 million direct jobs according to the Nasscom-Zinnov report 'Indian Tech Start-up'.

There is however a word of caution from McKinsey. India needs to increase its rate of employment growth and create 90 million non-farm jobs throughout the 2030s, for productivity and economic growth, according to McKinsey Global Institute. It thinks that net employment rate needs to grow by 1.5 per cent per year from 2023 to 2030 to achieve 8-8.5 per cent GDP growth between 2023 and 2030.

The optimism of these economic think-tank and economic experts stem from the fact that India's foreign exchange reserves stood at $ 581.131 billion in the week up to December 18, 2020 according

PER CAPITA GDP



Source : World Bank PPP

to data from RBI. Moreover, with an improvement in the economic scenario, there have been investments across various sectors of the economy. In 2020, the total deal value in India stood at close to $ 80 billion across 1,268 transactions. Of this, M&A activity contributed nearly 50 per cent to the total transaction value. Private Equity–Venture Capital (PE-VC) companies expanded from $ 36.3 billion (1,012 deals) in 2019 to $ 39.2 billion (across 814 deals) in 2020.

These are notwithstanding the fact that, India's overall exports from April 2020 to November 2020 were estimated at $ 304.25 billion, (a 14.03 per cent decrease over the same period last year). Overall imports from April 2020 to November 2020 were estimated at $ 290.66 billion, (a 29.96 per cent decrease over the same period last year).

Some other positively contributing factors:

- FDI inflows in India stood at $ 39.93 billion between April 2020 and September 2020, 10 per cent higher than the first six months of 2019-20 ($ 36.05 billion).
- India's Index of Industrial Production (IIP) for October 2020 stood at 128.5, against 123.2 for September 2020.
- Consumer Food Price Index (CFPI) – combined inflation was 9.43 per cent in November 2020, against 11.07 per cent in October 2020.
- Consumer Price Index (CPI) – combined inflation was 6.93 per cent in November 2020, against 7.61 per cent in October 2020.

It would not be a wrong notion to think that India in 2025 will emerge as one of the world's most entrepreneurial societies. Mind you that India has a culture of individualism and many think that Indians are "born" entrepreneurs. Besides, unlike in China, India's economy depends far more on pure private sector enterprises than on state-led ones, much to the advantage of the aspiring entrepreneurs. These entrepreneurs will benefit from the vast new opportunities that a larger economy will open up for them. And they will serve as the engines for the country's rapid economic growth.

If things move the way, it has been envisaged, India will also become a world leader in market-driven innovation. Mind you that adversity combined with ingenuity has always been the mother of innovation.

However, one has to keep in mind that even as India becomes the world's third-largest economy, it will still be one of the world's poorest countries - in per capita terms — for the next two to three decades. And low income levels will continue to provide enormous opportunity for India's entrepreneurs to emerge as leaders in frugal innovation, like designing, production and delivery of ultra-low-cost products and services.

INDIAN ECONOMY 2025-2030 & Beyond

The pandemic has caused long-term scars in the economy and the fiscal stimulus announced by the government may not just be sufficient. And these factors may push India's trend growth substantially lower from the pre-Covid levels. And that, in turn, may, cause a large medium term output loss. At least that's what Oxford Economics feels. Going by its forecast, India's potential growth would average just 4.5 per cent over 2020-2025, compared to its pre-virus forecast of 6.5 per cent.The investment recovery process is likely to be prolonged by two Covid-related developments — suspension of Insolvency and Bankruptcy Code (IBC) and loan moratoriums.

Banks are likely to exercise higher discretion in extending credits to corporates, with the IBC route for identifying distressed businesses having been closed for the time being. It is also likely that the bankruptcy process would be slower even after it is reinstated. That will delay recovery of bad loans. Digitization, globalization, favourable demographics, and reforms may eventually take India's GDP to a level of $ 5 trillion by FY25 and thereby achieveupper-middle income status.The focus on renewable sources to generate energy, may help the country get 40 per cent of its energy from non-fossil sources by 2030, which is currently 30 per cent. India also has plans to increase its renewable energy capacity from to 175 gigawatt (GW) by 2022.

India's consumption level is likely to treble to reach a level of $4 trillion by 2025. If it so happens, India will be the third largest consumer economy. There will also be a shift in consumer behavior and expenditure pattern. At least that's what, a recent Boston Consulting Group (BCG) report, suggested. If another study by PwC is anything to go by, India will overtake the US to become the second largest economy in terms of purchasing power parity (PPP) by 2040.

Jobless Growth Vs Development

Nearly 403.5 million Indians were part of the workforce and nearly 35 million were unemployed before the Covid-19 crisis. Normally, about 10 million new entrants also join the workforce each year.

However, in January, 2021, only 400 million Indians were employed. And these statistics have come from none other the Centre for Monitoring Indian Economy. Therefore, the market has not only been dismal for the new job seekers, but millions of people have lost employment during this period as well. A number of economic studies suggest that between 40 and 45 million people could be unemployed in the country today. And the true extent of unemployment in the country is not captured in these numbers. Because this does not take into account the large number of disguised unemployment- that is people who are working below their potential. And prevalence of disguised unemployment is not ruled out, if one considers the fact that given India's level of economic development and lack of social

security benefits, relatively few people can afford to stay unemployed.

Quite interestingly, one has also to keep in mind that people are termed unemployed only if they are looking for a job and cannot find one. But does everyone who enters the working age population, seek a job?

There can be more reasons than one for this, but existing socio-cultural norms and safety considerations, in general, dictate lower women participation in labour force in the country. As per ILO figures, India's female labour force participation is not only lower than the world average but it has come down by 6.9 percentage points between 1990 and 2016.

Besides, when prospects are too bleak, even men feel discouraged to scout for jobs. The extent of this is of course much lower, compared to that of women. The overall labour force participation rate for India stood at 37.5 per cent in 2018-19. It was even lower for the 15-24 age group at 27.39 per cent. Therefore, it is perfectly understandable why the unemployment statistics do not reflect the true extent of people who are unable to work at their full potential. The Covid-19 pandemic has only added to these concerns.

Pandemic & Labour Market

It does not require any rocket science to understand that the pandemic will have lasting impacts on the Indian labour markets. As starter, a direct impact will come from an increase in pool of unemployed workers, which will bring down their bargaining power and, thus, wages.

Labour productivity had an average growth rate of 2.8 per cent while real wage grew at an average of 0.9 per cent between 2000-01 and 2015-16, according to the data from Annual Survey of Industries. The decoupling of productivity and wages will further widen, thanks to the pandemic.

Consider a recent study by Princeton's Steven Strauss which has argued how industry concentration will go up in the post-pandemic economies. Mind you that the higher returns to e-commerce, automa-

tion, and technology will allow a few big companies to replace small businesses. These will also leave various markets with few competitors. Ironically, these trends will further dampen the labour's ability to demand higher wages and better working conditions. Indian policy makers will have to address these issues and find a solution to overcome these challenges.

JOB MARKET 2020-2030

Productivity growth and Employment Should Go Hand in hand

Many economists think that India must focus on labour-intensive sectors such as trade, transportation and storage, and hotels and restaurants, and knowledge-intensive sectors including communication and broadcasting, financial services, education, healthcare, information technology (IT) and business-process management (BPM), and other professional services. These sectors will collectively have to sustain and improve on their past strong momentum. The agriculture sector will need to increase productivity, thereby continuing its long-term trend of shedding jobs. Mind you that labour would move from agriculture into higher-productivity sectors.

The productivity growth will have to ensure higher incomes for all workers, including those left in the agriculture sector. It is estimated that nearly 30 million farm jobs could move to other sectors by 2030 as part of a high-growth strategy. If India is to achieve and employment growth rate of 1.5 per cent

and productivity growth rate of 6.5 to 7 per cent, India needs to leapfrog ahead.

Going by a recent McKinsey study, for the time frame of 2023–30, creating sufficient numbers of gainful and productive nonfarm jobs would require GDP growth of between 8 and 8.5 per cent annually. This rate of economic growth is needed for India to generate 60 million net new jobs by 2030 and 90 million nonfarm jobs, the equivalent of 1.5 per cent annual growth in net employment from 2023 to 2030. This would be in line with the growth in employment that the country had achieved between 2000 and 2012—and almost double the 0.8 per cent historical employment growth over the past 20 years. At the same time, India will need to maintain productivity growth at 6.5 to 7 per cent per year, the same as it achieved from 2013 to 2018. Make no mistake. These two objectives are not contradictory at all.

Between 2020 and 2030, India will have to create at least 90 million new non-farm jobs to absorb the 60 million new workers who are expected to join the workforce based on current demographics. Besides, an additional 30 million workers could also move from farm work to more productive nonfarm sectors. If this influx is to be absorbed, India will require nearly 12 million additional gainful nonfarm jobs every year starting from FY 2023 — triple the four million non-farm jobs created annually between 2012 and 2018. And in case, an additional 55 million women enter the labour force, at least

partially correcting historical underrepresentation, mind you that India's job creation imperative would be even greater.

India's current labour force participation rate is just 49 per cent. This clearly means that only about half of the people in the working age is engaged in paid work. Ironically, India's female labour force participation rate is among the lowest for large economies and is falling. If we consider the 2019 figures, while in China, it is 61 per cent, in Thailand it's 59 per cent, in Bangladesh it's 36 per cent, and in Sri Lanka it's 35 per cent, in India the female labour force participation was at 21 per cent and has fallen from about 32 per cent in 2005.

However, the good thing is that with 55 million more women potentially entering the labour market, it can jolly well rebound to 30 per cent by 2030. And women in the prime age group of 25 to 54 years can drive this significant rise. Their labour force participation could also rise from 28 per cent to 46 per cent. This lift, if it comes through, would be a legitimate aspiration for India, quite in line with the level of female employment seen in other low- and middle-income emerging economies in South Asia like Bangladesh and Sri Lanka. If we include this potential increase in the proportion of working women, and assume that they would all seek non-farm employment, India would require to create 145 million incremental non-farm jobs by 2030.

Young talent & demographic structure: Twin engines of growth

By 2025, one-fifth of the world's working age population will be Indian. By 2030 there will be over 850 million internet users in India. By 2035 India's five largest cities will have economies of comparable size to middle income countries today. There will be no market over the next 20 years which would offer more growth opportunities for any overseas business than India. Significantly, it is these twin engines of India's young talent and democratic structure which are the cornerstones of the country's $5 trillion economy dream. Strong economies are always fuelled by big consumption stories, and India's demographic composition is well equipped to deliver this — the key is making money available in the hands of the people. Ease of credit should be the next mantra. What is worrying, in this context is the sluggish consumer spending due to pandemic-related concerns, beginning of the recovery process, otherwise, notwithstanding. India will have to come up with effective policies to address risks that weigh on consumer confidence and thereby, boost spending. Mind you that While substantial spending by the government provided the biggest boost to growth, private investments and goods exports-in segments such as engineering goods, chemical products, and pharmaceuticals-did fairly well in the last quarter of the fiscal year. A combination of various measures such as infrastructure development, adoption of digitization and technology, well-equipped manufacturing should be ideal growth drivers in the days to come. The Centre has aptly laid emphasis on infrastructure spending, monetisation of assets, capital expenditure, raising allocation for healthcare capacity building, and development of agriculture infrastructure, among others, which are expected to have a multiplier effect on the economy.

Soumya Kanti Ghosh

Group Chief Advisor
State Bank Of India

Expected growth drivers of the economy

There is a beautiful quote which says, “In a time of destruction, create something.” In FY21, the entire world including India witnessed destruction at a massive scale of lives and livelihoods, of hopes and dreams. But the remarkable resilience of humankind has ensured India rose from the ashes forging ahead despite the challenges faced the past year. In fact, India has seized this time as a big opportunity to create a blueprint for the future.

The story of India has always been a consumption led growth story. Thus, the current focus of the

Government remains on propelling consumption as the COVID -19 induced lockdown and restricted mobility resulted in sharp fall in GDP growth and private consumption.

In essence, India is aiming to build an Atmanirbhar India that will promote self-reliance. A self-reliant India will stand on five pillars: 'economy', which brings in quantum jump and not incremental change; 'infrastructure'; 'system', based on 21st century technology driven arrangements; 'vibrant demography', which is our source of energy for a self-reliant India; and 'demand', whereby the strength of our demand and supply chain should be utilised to full capacity. Our consumption model will primarily incorporate sustainably sourcing products manufactured in India and giving a push to our local manufacturing.

> The act defined a sick industrial unit as one that had existed for at least five years and had incurred accumulated losses equal to or exceeding its entire net worth at the end of any financial year

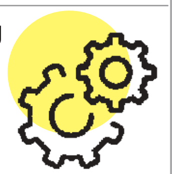
Post-Covid revival strategy gives a major thrust to agriculture and MSMEs. Since the first-generation reforms, dwindling prospects in agriculture have capped economic growth by containing the overall demand. The government now wishes to create a unified market in agriculture commodities, pushing investment in agriculture supply chain through the Agriculture Infrastructure Fund, better price realisation for farmers and bringing modern technology in agriculture.

Income generation through agriculture and allied activities is expected to support the MSME sector along with preference for our local products and government procurement. The thrust to mining notably in coal and other minerals, introduction of a seamless exploration-mining- production regime,

10 Reforms that changed India

GST did change the tax regime, but there are other key steps that form the bedrock of India's market-led econpomy and helped achieve higher growth...

● NEW INDUSTRIAL POLICY



- Industrial licensing was abolished and 18 PSU industries were gradually liberalised
- Monopolies and Restrictive Trade practices Act, 1969, was abolished

● FDI AND TRADE POLICY

- Import licensing was abolished for capital goods & intermediates, which became freely importable in 1993, simultaneously with the switch to a flexible exchange rate regime
- India joined the World Trade Organisation and Trade -Related Aspects of Intellectual Property Rights agreement
- Quantitative restrictions on imports of manufactured consumer goods and agricultural products removed in 2001. the policy now allows 100% foreign ownership in many industries and majority ownership in all except banking, insurance, telecommunicartions and airlines
- Current account convertibility introduces in 1994

● NEW INSTITUTIONS

- ISecurities and Exchange Board of India extablished
- Insurance Regulatory & Development Authority and Pension Fund Regulatory & Development Authority set up
- Union Budget created development finance institutions' and bad banks to fund infrastructure and resolve stressed assets
- GST Counsil established

● GOVT. BORROWINGS

- Domestic bond markets created and Clearing Corporation of India set upsimultaneously with the switch to a flexible exchange rate regime

● INTEREST RATE LIBERALISATION

Interest rate controls were dismantled and savings interest rates were deregulated

● BASEL ACCORDS

Basel Accords, a series of 3 international banking regulation agreements, adopted

● NFSA AND MGNREGS

NFSA legally entitled up to 75% of the rural and 50% of the urban population to receive subsidised food grain under the Targeted Public Distribution System MGNREGS guaranteed 100 days of wage employment per year in rural areas

● AADHAR

- Aadhar system provided a single-source offline / online identity verification, boosting the inclusion of programmes like PMJDY, Aysshman Bharat and Ujjwala

● INSOLVENCY AND BANKRUPCY CODE

- A comprehensive law, IBC consolidated both consequential aspects of an economic collapse of a debtor - rehabilitation as well as liquidation

● MONETARY POLICY COMMITTEE

- MPC was set up with basic objective to manintain price stability and accelerate the economy's growth rate. It has brought monetary policy decision making in line with global best practices

measures in civil aviation, privatisation of power distribution and space will bring private interest in these sectors. Also, indigenisation of defence hardware could open huge opportunities downstream for domestic manufacturing. In this context it may be mentioned that the Budget has recently provided ₹15,700 crore to MSMEs. There has also been an announcement of Performance Linked Incentive scheme for 10 manufacturing sectors. The quest for Atmanirbharta continues and can create industry leaders who can supply globally.

The focus on building local businesses goes hand in hand with the reforms and policies which make conducting businesses easier. Keeping that in mind there has been a massive push towards building physical and social infrastructure. In the recent budget, the capital expenditure has been kept at a higher level with growth of over 34% from FY21. The incremental jump in capital expenditure is at ₹ 1.14 lakh crore which is 4.7 times higher than the ₹ 25,000 crore on an average increase during the last 2 decades. The proposed capital expenditure of ₹ 5.5 lakh crore for FY22 amounts to 3.4% of the GDP. Even if we assume an ICOR at 4.5 one can expect GDP growth contribution up to 1%. This infrastructure push will give a fillip to the economy as well as help in business connectivity.

The world still believes in the India growth story, as is evident from the record FDI inflows India has been witnessing after the initial months of COVID. For the Apr-Nov'20 period the Foreign Direct Investments to India reached $41.2 billion vis-à-vis $35.3 billion in Apr-Nov'19. This shows that fundamentally the economy is strong and given the reforms being undertaken we can expect to see further FDI flows. Even the IMF has recently projected an impressive 11.5% growth rate for India in 2021, making us the only major economy of the world to register a double-digit growth this year amidst the coronavirus pandemic.

To further boost investor sentiment, the budget also proposes setting up of a bad bank which could significantly leverage lending opportunities of banks with unlocking of capital, improving recovery and bolstering of bank balance sheet through freeing up provisions and thereby impacting profitability of banks. There are also provisions of bank privatisation of two public sector banks and one insurance company that could allow public sector banks to unlock their value. The budget has also proposed to increase the FDI limit in insurance companies to 74% from the present 49%, with Indian management control. All these are major changes to open the Indian financial sector. It is also expected that fresh capital will bring a new wave in better technical know-how, innovation, and new products to the advantage of the consumers as the disinvestment plans of the Government fructify.

The government has to now ensure the proper implementation of the beautifully crafted plans and schemes. We are already in a regime of ample liquidity and low interest rates and stable exchange rate regime and this is likely to continue in the future. This coupled with the reforms being undertaken can make it easier and more profitable to conduct business in India and propel the growth further.

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Covid pandemic brings back Spanish Flu memories

The deadly 1918 influenza epidemic, also popularly known as the 'Spanish Flu' had till recently been Indian subcontinent's most deadly epidemic that killed an estimated one crore Indians in the erstwhile British India. Over a century down the road, we are once again at the same point and in the same situation. It's time to compare and assess the socio-economic implications of the 1918 influenza pandemic and the COVID-19 pandemic in India. Both pandemics are similar in the nature of their disease and spread, and have had a far-reaching impact on society and economies worldwide. The findings of different studies in this regards, suggest there are similarities in the socio-economic implications of the two pandemics and also indicate that developing countries face more severe implications of such pandemics as compared to developed countries. The coronavirus pandemic has revived people's interest in the Spanish Flu.

Sharad Kumar

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Pandemic: Effects on Indian Economy, A comparison 1920 and now

It is always an excitement to complete a year of execution for any activity, be it a financial year for business, an academic year or even a crop season for the farmers. It may result in either a stupendous business results, a name in the merit list or a good harvest.

It was in late March 2020, when the first lockdown was announced. It brought along a period of uncertainty, scare, business losses and a series of events associated with complete shutdown of activities, labour migration at the major business centres like Maharashtra, Tamil Nadu, Karnataka etc. There was loss of income, employment and beginning of uncertainty for many of the people, especially in the unorganised sector.

Whether completion of one year of pandemic in India has been able to bring back the normalcy remains a question. The feeling of scare has certainly come down or almost gone and there are signs of

improvement in every sector of the economy. However, no one should still think of moving to the zone of complacence.

The current pandemic took us roughly 100 years back down the lane and people were reminded of the Spanish Flu, a similar kind of pandemic which had disastrous impact on the mankind.

As per research reports, an estimated 40 million people, or 2.1 percent of the global population died in the Great Influenza Pandemic of 1918–20. The numbers look humungous if you account for the lack of connectivity in those times. However, the excellence in the field of medical research now, compared to those times speaks about the high numbers. The ending years of first world war added to the woes and to the rising numbers during that period.

What is most interesting and rather surprising part is the population group which bore the brunt of Spanish flu as compared to Covid-19. While, the Covid-19 has hit the old and population with co-morbid conditions and this segment still remains the most vulnerable, the Spanish flu was deadly for the young adults. This has been the biggest and most significant difference between Spanish Flu and Covid-19 Virus, which directly or indirectly has a huge economic and social impact.

The Indian economy was severely impacted in the Spanish flu. Estimates say that around five per cent of the population, which roughly come to around 16-18 million died during the three years of the flu as compared to a mortality rate of 0.3% in Australia and 0.5% in US. Colonial India and other such countries like Africa suffered the most and it is said that it was the returning soldiers of the WW I, who acted as the carriers of the flu. Since India was a colony of Great Britain, it was only the poor's who suffered who could not afford to maintain social distancing due to living in closed groups and in small colonies unlike the ruling britishers or the high elite people who lived in large bungalows and could afford to maintain the distance with common people.

As reported in Business Standard, India's per capita Gross Domestic Product took four years to recover from that crisis. In one of the studies, Chinmay Tumbe, an economic historian has reported that, "recorded growth in real gross domestic product (GDP) was the lowest (-10.5%) while inflation was near all-time highs, a cocktail much worse than any other tragedy that has hit India — including the world wars or the Bengal famine." As per the economic sense if GDP falls, prices also fall. However, since no one was going for work in 1918 due to the virus impact there was a supply-side shock. In 2020, things were same but not completely.

India, as it stands today is not anymore, a vulnerable country and rather is among the frontrunners even in the Vaccine development. The impact on growth had been tremendous and took a negative dip to the extent of 23.9% but is getting stabilised now. Inflation too after picking up, which too was not far away from the normal trends has eased.

India has been known for its demographic dividend, which effectively means that it is the higher percentage of young and earning population of the country, which is giving the contributing to the desired growth of the country. it is this young population, which has given the consumption potential which every country in the globe is vying for. So much so that China as the world leader in exports is working on changing its growth model from a export driven one to a domestic consumption based model. Whether it was the East Asian crisis of the late 1990s or the US Sub-prime crisis of 2008, Indian market could remain resilient because of the internal driving force.

It is a firm belief that India by virtue of the series of reforms being unleashed by the Government in the form of PLI scheme and other Aatma Nirbhar package ingredients should be able to make a strong comeback on economic front.

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Chapter 2

SECTOR SPECIFIC PRO GROWTH POLICIES

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There is no doubt that the Covid-19 pandemic threw up the most formidable economic challenge not only to India, but to the whole world in the last 100 years or so. Various governments and central banks in different parts of the world, came up with different policy tools to support their economies. These measures included lowering key policy rates, quantitative easing measures, loan guarantees, cash transfers and fiscal stimulus, among others.

The economy managers of India also assessed the disruptive impact of the pandemic and accordingly drew up its plans, the dismal projections made by several international institutions notwithstanding. Mind you that several transnational institutions portrayed a somewhat gloomy and alarming picture, considering India's large population, high population density and last but not the least, an already overburdened health infrastructure.

Government Policy Tools

- Lowering Key Policy Rates
- Quantitative easing measures
- Loan guarantees
- Cash transfers
- Fiscal stimulus

Economic Stimulus Measures

- On March 26, 2020: ₹ 1.7 trillion ($ 22 billion approx) relief package announced by the Finance Minister
- On 15 May: the Prime Minister of India declared a COVID relief package of ₹ 20 trillion ($260 billion approx)
- On 14 Nov : ₹ 2.65 lakh crore comprehensive stimulus package announced by the Finance Minister

Tax measures – Direct and Indirect

- Payment and Deferrals
- Rate reduction

Food related

- About two-thirds of population has been announced to be covered under the Pradhan Mantri Garib Kalyan Anna Yojana (Food scheme). Everyone under this scheme will get 5 kg of wheat and rice for free in addition to the current 5 kg allocation for the next 3 months.

- In addition, 1 kg of preferred pulse (based on regional preference) will be given for free to each household under this Food scheme for the next three months.

- This distribution will be done through Public Distribution Scheme (PDS) and can be availed in two installments.

Direct benefit transfer related

- Farmers currently receive ₹ 6,000 every year through the PM-KISAN scheme (minimum income support scheme) in three equal installments. The government will now be giving the first installment upfront for fiscal year starting April 2020. About 86.9 million farmers are expected to benefit from this immediately.

- MNREGA workers: Wage increase from ₹182 to ₹ 202. Such increase will benefit 50 million families. The wage increase will amount into an additional income of ₹ 2,000 per worker.

- 30 million senior citizens, widows, disabled to get one-time ex-gratia amount of ₹1,000 in two installments.

- 200 million woman Jan Dhan account holders to be given ex-gratia amount of ₹ 500 per month for 3 months, to run the affairs of their household.

- Women in 83 million families below poverty line covered under Ujwala scheme were announced to get free LPG cylinders for 3 months.

- Training For 630,000 Self-help Groups (SHGs), which help 70 million households, the government is doubling collateral-free loans to ₹ 200,000.

- Training State governments have been directed to use the welfare fund for building and construction workers. The District Mineral Fund, worth about ₹ 310 billion, will be used help those who are facing economic disruption because of the lockdown.

Healthcare related

- The Finance Minister has announced medical insurance cover of ₹ 5 million per healthcare worker. About two million health services and ancillary workers will benefit from such insurance scheme.

Organised Sector Related – Social Security

- The Employees Provident Fund Organisation (EPFO) has announced - employees who contribute to EPF can withdraw up to 75 per cent of the account balance or three months' basic salary and dearness allowance, whichever is lower. It is an ongoing process.

- New employees under the Employees' Provident Fund Organisation (EPFO)-registered organisations will enjoy benefits, including subsidy support by way of EPF contributions. The scheme is expected to cover 65 per cent of employees and 95 per cent of establishments in the formal sector.

- Establishments which employ up to 100 employees and if 90 per cent of whom earn up to ₹ 15,000 per month, the government announced to pay the employee provident fund contribution both of the employer and the employee (12 per cent each) for March 2020 to May 2020. This support was extended for another three months i.e. June to August 2020.

- Non-refundable advances may be granted to a member of a provident fund, subject to certain conditions.

- EPFO issued the circular which states that no proceedings should be initiated on establishments covered under the EPF Act for levy of penal damages on account of any delay in the payment of any contributions or administrative charges due for any period during the lockdown of 2020.

- The Pension Fund Regulatory and Development Authority (PFRDA) allowed partial withdrawals from the NPS to fulfill financial needs towards treatment of the COVID-19 illness of a member, his/her spouse, children (including adopted child), or dependent parents.

Liquidity measures

- Reduction of policy repo rate by 75 basis points (from current 5.15 per cent to 4.40 per cent).

- RBI announced to conduct auctions of TLTRO (Targeted Long Term Repo Operations) of up to three-year tenor of appropriate sizes for a total amount up to ₹ 2 lakh crore ($26 billion) at a floating rate, linked to policy repo rate (50 per cent corporates, 25 per cent for development institutions for onward lending to agri, housing and medium / small enterprises and 25 per cent for NBFCs and MFI).

- Liquidity coverage ratio for banks reduced from 100 per cent to 80 per cent likely to release liquidity.
- Announcement of injecting liquidity of ₹ 4.74 lakh crore ($63 billion) to the system.

Relief for MSMEs

- ₹ 3 Lakh crore ($39 bn) collateral free loan with 100 per cent credit guarantee.
- ₹ 20k crore ($2.6 bn) subordinate debt for stressed MSMEs.
- ₹ 50k crore (USD 6.5 bn) equity infusion for MSMEs with growth potential and viability through Fund of Funds .
- New definition of MSMEs – investment limit revised upwards; additional criteria of turnover introduced.
- No global tenders for government contracts up to ₹ 200 crore ($26 mn).
- E-market linkage to be promoted as replacement of trade fairs and exhibitions

Relief for NBFCs

- ₹ 30k crore ($3.9 bn) liquidity infusion for NBFCs/HFCs/MFIs
- ₹ 45k crore ($5.9 bn) partial credit guarantee scheme for NBFCs

Relief for Power utilities

- ₹ 90k crore ($11.7 bn) liquidity infusion to DISCOMs against receivables guaranteed by State government for exclusive purpose of discharging liabilities to power generating firms.

Regulatory measures

- Moratorium period was announced to be excluded while computing 90 Day NPA norm for asset downgrade.
- Time period allowed under RBI framework for resolution extended by 90 days (210 + 90 days).
- Extension of up to 6 months was announced to be provided by all Central Agencies (like Railways, Ministry of Road, Transport & Highways, Central Public Works Dept, etc.).
- Registration and completion timelines extended by upto six months for all registered real estate projects.
- Concurrent extension of various statutory compliances under RERA.

Insolvency and Bankruptcy Code (IBC)

- Threshold of default under section 4 of the IBC was increased from ₹ 100,000 to ₹ 10 million with the intention to prevent triggering of insolvency proceedings against MSMEs.
- Fresh admission of Insolvency cases for default arising after 25 march 2020 under IBC, 2016 suspended for six month (extendable by another six months) in an effort to stop companies at large from being forced into insolvency proceedings in such force major causes of default.
- Loans for COVID-19 excluded from definition of default.

Easing Demand-Supply Constraints

Multi-dimensional efforts with a multi-pronged approach were initiated by the union government and India's apex bank to bring back and maintain fiscal stability. The whole idea was to provide regulatory support required to ease both demand and supply constraints posed by the pandemic. And fortunately, the policy support, which came from the Centre and the central bank, did help cushioning the expected fall in demand thanks to the lockdown-induced distress on both individuals and firms.

Quite interestingly, unlike many other countries, in India, that the demand stimulus was introduced in a phased manner with prior focus on measures to provide a cushion for the have-nots, the economically weaker section and the business community. And that way, the response from the India government to the pandemic was distinctly different, when it came to fiscal policy.

Target additional demand of ₹ 730 bn

(As announced in October 2020)

- Advance payment of a part of the wages of federal government employees during the festival season
- Allowing its employees to spend tax-exempt travel allowances on goods and services
- More capital Spending: Extra ₹250 bn spending on roads, ports, defence projects
- Offering ₹120 bn in interest-free 50-year loans to state govts for infrastructure spending

Tools for Stimulating Consumer Demand

Let's now take a look at some such policies and programmes

- One of the world's largest food grains distribution programme.
- Direct Cash transfers to 42 crore individuals
- 20 crore + Women Jan Dhan Accounts
- Cash support to construction workers
- ₹30000 crore additional emergency working capital funding to farmers
- Additional pension payments
- Provision for free gas cylinders
- Additional allocation under MGNREGS
- Emergency Credit Line Guarantee Scheme (1 & 2)
- Postponement of financial deadlines
- Garib Kalyan Rojgar Abhiyaan (GKRA)

Enhancing Liquidity

Then India's apex bank- RBI, also initiated a number of measures- conventional and unconventional- to enhance and manage liquidity situation in the country.

These measures included

- Injection of durable liquidity of ₹ 2.7 lakh crore +
- Reduction in the Cash Reserve Ration from four per cent to three per cent
- Augmenting primary liquidity in the banking system
- Raising bank's limit for borrowing under Marginal Standing Facility
- ₹ 50,000 crore Special Liquidity Facility for mutual funds
- Refinance facility worth ₹ 75,000 crore for all institutions i.e., NABARD, NHB, SIDBI and EXIM Bank
- Set up a Special Purpose Vehicle (SPV) to purchase short-term papers from eligible NBFCs/HFCs

Funds flow through gold bond market

The Covid-19 crisis is far from over. The pandemic will ease-off only when there's an effective vaccine, and who knows how long that could take. Quite apart from the pandemic, there's Brexit and a battered global economy, which will try to find new, socially distanced ways to do business. Uncertainty is guaranteed for the next couple of years at least. Attractiveness of gold as an asset class has gone up considerably in the wake of wide spread fears of a global recession and easy liquidity by central banks across the world. Another point to note is that gold is a good hedge against rupee weakness. International prices are dollar-denominated. If the rupee weakens, that factors automatically into the gold price. A third point is that gold tends to keep pace with, or outpace inflation India's pattern of low growth and rising inflation could in itself set up a bull-run since India aggregates to a substantial player in the global gold market. Financial planners are of the view that from the investors' perspectives, one of the best ways to capture this asset class would be through sovereign gold bonds.

India government has introduced two important schemes, the Gold Monetisation Scheme and the Sovereign Gold Bond Scheme (SGBS), which are expected to positively impact the economy. Mind you that India's domestic production of gold is minimal, despite being among the largest gold market with an average demand of nearly 800 tonne in a year. This accounts for around 25 per cent of the world's gold demand. This demand, therefore, is met largely through imports. India's current account deficit (CAD) is impacted by this large demand for gold imports. The large import demand has its implications on the external sector stability. SGBS was introduced in the Union Budget of 2015-2016 to promote digital gold as an alternative to purchasing physical gold.

The SGBS can be traded on exchanges and can also be used as collateral for loans. Additionally, one is exempted from capital gains tax arising on redemption of SGBS. At the time of redemption of bonds, one gets the existing market price along with interest. Therefore, many think it is better than holding gold in physical form as the risks and costs of storage and security are done away with.

The SGBS aims at bringing down people's dependence on physical gold as savings instrument. The bonds are similar to physical gold in terms of value and investments and therefore the scheme is likely to cut down imports. This again will bridge the CAD.

Increasing Productivity, Competitiveness, Ensuring Growth & Jobs

The transnational consultancy firm-Mckinsey, in a recent study said that India needs to create at least 90 million jobs by 2030 as a new generation reaches working age, millions of workers move from agricultural work to better-paid jobs in other sectors, and an increasingly larger number of women participate in the labour force. If India is to create so many jobs will, GDP growth needs to be boosted strongly. GDP growth will have to be between 8 and 8.5 per cent on an average, every year from 2023 to 2030.

This may apparently look like an ambitious goal, given the slowdown and the extreme economic uncertainties posed by the pandemic, but if the country does not take any step that would result in decades of stagnation, with low income growth and rising unemployment. The intention of getting India back on its high-growth track can only be translated into action, if a set of reforms are put in place.

A few set of reforms to manage the situation could be as follows:

- Privatisation of as many as thirty 30 largest state-owned enterprises
- Try and double their productivity
- Framing off sector-specific pro-growth policies
- Attract investments in manufacturing, real estate, agriculture, healthcare and retail sectors
- Create flexible labour markets for industry with better benefits and safety nets for workers . Businesses, on their parts, would need to develop a long-term value mind-set and develop capabilities in automation and digitisation, product innovation, M&A, and corporate governance.

Creating positive environment for investment through tax reforms

India's Personal Income Tax collection has been historically exceeding Corporate Tax collections, implying thereby that individuals and small businesses are bearing the tax burden more than big businesses. CMIE data suggests that the profitability of listed companies had grown by 212.4 per cent in the last quarter of FY 2020-21, and their revenues had gone up by 14.7 per cent, but Corporate Tax collections had come down by 18 per cent in FY 2020-21. Earlier, thanks to the lowering of Corporate Tax rates in Budget 2019, Corporate Tax collections had dropped by 16 per cent in 2019-20. Overall, Corporate Tax collections have fallen by more than 31 per cent since 2018-19. On the other hand, Personal Income-tax collections increased in FY 2019-20 and went down only marginally (by 2.3 per cent) in FY 2020-21. Ideal strategy should therefore be that tax rates for firms should be brought on par with those of corporates in order to promote small businesses and generate employment.

A cut in personal income-tax rates recommended under the DTC could similarly boost consumer spending. With supply reaching pre-pandemic levels, demand now needs to catch up. Lower taxes could be a silver bullet. In another significant development, the Taxation Laws (Amendment) Bill, 2021 placed in the Lok Sabha, seeks to withdraw tax demands made on indirect transfer of Indian assets prior to May 28, 2012. It also proposed to refund the amount paid in these cases without any interest thereon. The amendment aims at ending the vexed retrospective tax. The whole idea is to do away with the sore points of the potential investors and tax payers and create a positive environment for investment in the country.

Anand Kishore

Chief Commissioner
Indian Revenue Service, Government of India

Income Tax as a Growth Booster of the Economy

Income tax or to be precise, Direct Taxes, are the key pillar of the Central as well as States' fiscal health. In fact, it would not be wrong to say that the receipt of direct taxes is the mirror of prosperity in any society. Unlike the indirect taxes which are regressive in nature as incidence of taxation on goods or services is equally borne by the rich as well as the poor, direct taxes are fundamentally a progressive

form of taxation. Every growing economy relies more on direct taxes to enrich its revenue kitty and undertake a large bucket of welfare schemes. In other words, the rise of tax collections under the direct tax head is a welcome development as it reflects all round development and augmentation of living standards of citizens in any country.

India is no different from other emerging economies. About 15 years back, India's direct tax collections were merely a little over ₹ 1 lakh crore. Thanks to forward-looking policies and sustained efforts of the Income Tax Department, India today mops up as much as ₹ 11.4 lakh crore as per the data of fiscal year 2018-19. Data of the pandemic period is being deliberately excluded as it was a tough time for the industry and trade and thus, the tax collections have nosedived significantly during the fiscals 2019-20 and also 2020-2021.

At one point of time in the financial year 2018-19, thanks to buoyant income tax collections, India's tax to GDP ratio had gone past 11 per cent. Then came the global setback of COVID-19 which has lowered the same ratio to 9.88 per cent. With shutters down for the businesses and a major reduction in the corporation tax rate last year, the direct taxes' share in the overall revenue kitty has dipped to 5.1% and the the reliance of the government on indirect taxes has once again gone up. As stated earlier, India is one the most important emerging economies in the world with the size of its economy nearing the 3 trillion dollar mark and foreign exchange reserves crossing 500 billion dollars. The International Monetary Fund (IMF) has projected the economic growth of India in the current year 2021 at 11.7%, which is the highest among all nations. In fact, India shall be the major driver of economic growth in the world during the post Covid-19 era.

Anticipating this huge opportunity, the Government of India has launched the ambitious "Atmanirbhar Bharat" programme which aims to make India not only self reliant, but also to make it a global hub for modern technology driven manufacturing and value added services. The "Atmanirbhar Bharat" push shall require massive capital investment in infrastructure creation, cutting-edge technology development and skills upgradation of India's workers and managers. The Government's plans to infuse ₹100 lakh crores in this endeavor from its own sources as well as from domestic and foreign private entities in the near future.

The Income Tax policies of the Government shall be one of the major factors which shall determine the success of the programme and act as a booster for high economic growth of the country. A transparent, fair and certain Income Tax regime is necessary to —

- Increase Government tax revenue for the massive public sector investment to create world-class infrastructure which will attract private capital and enterprise.
- Incentivize domestic and foreign private entrepreneurs to invest in and establish productive units in the country, and
- Ensure adequate resource allocation to the high priority sectors and regions.
- Direct Taxes (which includes Corporation Tax and Income Tax) are the largest revenue earner for the Central Government. In the budget 2021, it is estimated to comprise 27% of the Government's total receipts (₹11.08 lakh crores). This is about 22.5% more than the Revised Estimates of ₹9.05 lakh crores for F.Y. 2020-21. To achieve and also exceed this target, the Government has taken a number of initiatives recently, namely,
- Introduction of faceless assessment and appeal procedures through digital interface with a view to curb arbitrary and biased actions,
- Impetus to tax dispute resolution by introducing the Vivad se Vishwas scheme and setting up of dispute resolution committees,
- Reduction of Corporate Tax rate to 25% (from the earlier 30%) in case of domestic companies where its total turnover or gross receipt during the earlier year does not exceed ₹400 crore. This far reaching bold reform can be a big incentive for the MSME sector,
- Special tax initiatives to encourage start-ups. A start-up incorporated between 01.04.2016 to 31.03.2022 is eligible for 100 % tax rebate on profit for a period of three years in a block of seven years provided its annual turnover does not exceed ₹ 25 crores in any financial year. Further, long term capital gain exemption has been given to eligible start-ups under the new section 54EE, and
- Tax incentives for the Gujarat International Finance Tec-City (GIFT City) at Ahmedabad to attract foreign investors and to develop it is a global finance hub. These incentives will bring foreign capital in Fund business, aircraft leasing and for development of world-class Fintech

Shri Anand Kishore is an IRS (Indian Revenue Service) Officer of 1982 batch. He has had a very impressive career in Government of India IR dept. He brings with him 28 years of experience in different posts in CBDT, Ministry of Agriculture and Municipal Corporation of Delhi. He was also Chief Commissioner Income Tax. Since 2016 he's a Member of the Appellate Tribunal for Forfeited Property & Money Laundering, Government of India. Earlier, he had joined Engineers India Limited (EIL) as Chief Vigilance Officer (CVO). Prior to this he was Commissioner of Income Tax, Patna.Shri Anand Kishore is a post graduate from University of Delhi and an MBA from University of Western Sydney, Australia. His initial schooling was done from St. Xavier's and St. Michael's, Patna from 1963 to 1972

Sea of Opportunities

Loss of livelihoods and jobs are two of the key challenges that the Indian economy faces post pandemic. And the economic think-tank of India is of the view that the road to recovery and growth goes through the ocean. Aptly called the Blue Economy, this economic model is actually a subset of the national economy comprising an entire ocean resources system and human-made economic infrastructure in marine, maritime, and onshore coastal zones within the country's legal jurisdiction. The Blue Economy offers enormous potential for sustainable economic activity and job creation after the pandemic.

Mind you that India has a coastline of close to 7.5 thousand kilometer, nine of its 29 states are coastal and the overall geography of India includes 1382 islands. That's not all. India has Exclusive Economic Zones of over 2 million square km that has a bounty of living and non-living resources with significant recoverable resources such as crude oil and natural gas. India also has as many as 199 ports, including 12 major ports that handle nearly 1,400 million tonne of cargo every year. Little wonder therefore, that the Union Ministry of Earth Sciences has come up with a Draft Blue Economy Policy in line with the Centre's 'Vision of New India by 2030'.

If executed properly keeping sustainability and socio-economic welfare atg the center-stage, the proposed Blue Economy may well be the next multiplier of GDP and well-being.

Dr Arabinda Mitra

Scientific Secretary,
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Vision of a Blue Economy for India

Ocean has since immemorial influenced the life of man and shaped the history of nations. Who other than India is better positioned to understand the ocean as prophesied in our ancient texts: “Oh Ocean, you are the storehouse of the 14 gems! There is no end to your riches, your greatness is indeed unfathomable”.

The geographical disposition of India, flanked by semi-enclosed sea containing major island chains on either side and bounded by the Indian Ocean creates a veritable economic potential that needs closer comprehension. It is imperative that in order to empower the nation and secure its interests as a blue water economy we have to considerably improve the scientific understanding of the surrounding oceans. This will provide us the pathway towards sustainable development of marine resources both

living and non-living for improving livelihood of our people, in predicting coastal hazards and importantly securing maritime assets both in the EEZ and in the international waters.

To make India an exemplary steward of its ocean heritage it has to build capabilities for temporal and spatial measurements of oceanic parameters required to understand the ocean processes and its implications; develop cutting edge marine technology required for survey, exploration and exploitation of near shore and deep-water resources; and generate trained human resource for supporting vibrant marine industrial base and smart maritime services.

On the national framework, creation of an Ocean Commission with the mandate to usher knowledge-based blue economy by effectively stimulating and synergising the multi-stakeholder participatory and capacity building in the marine sector is the need of the hour. As a foreign policy imperative, India has to forge partnerships with neighbouring countries through the awareness and concept of 'one ocean'. This will help to secure recognition for the interests and leadership of India in the Indian Ocean both at regional and international forums.

Unravelling the potential of the maritime sector in the economic growth of the country would entail targeted capacity building in the several defining aspects. Ocean state forecast will be fundamental to improve the science in understanding the ocean and inter-related dynamic processes involving the land-ocean-atmosphere coupling. Success in delivering near accurate ocean advisories based on scientific evidence will hinge on a combination of robust observational systems coupled with computational data analytics tools. The ability to forecast and predict the monsoon system, storm surges, disaster warnings, potential fishing zones, and other near shore hydrological processes will enable us to develop an integrated and viable coastal economic development plan and maritime infrastructure which is vital for a security prognosis strategy. For serving economic needs the observation system should yield value-based dataset that have strong dissemination and service links for citizenry usage. The core intent should be to establish a cost effective and integrated marine observational system to provide real time, accessible and affordable ocean information and advisory services. This will fuel value-based service industry supported through mid-sized knowledge enterprises.

An integrated coastal management plan for socio-economic sustenance of nearly 370 m coastal and island population is vital. Estuaries, lagoons, corals, mangroves, beaches and sand dunes along the 7500 km coastline and the island chains serve varied purposes, but most importantly have an untapped rich source of biological diversity and mineral wealth. The resilience of an eco-system to support optimal potentials of a vibrant and multifaceted coastal economy will be dependent upon scientifically supported policy guidelines. Innovative new approaches hinged on effective conservation plan can help us to develop a new economic model based on maritime infrastructure and resources. This will promote multiple new uses suited for coastal power plants, chemical processing industry, ship-building industry, on-shore and off-shore harbour development, shipping lanes for the 'Sagarmala' project and new vistas in maritime tourism and habitat development for all coastal states and islands.

In order to secure recognition of the economic and political interests of India both under the regional and international framework, the continuum of the oceans beyond the EEZ has to be systematically pursued under the 'one ocean' concept. This can be realised through an effective presence in the

international waters through an enabling collaborative strategy based on our scientific strength and naval capabilities. Implied in this strategy is the need for technology capacity building and creation of effective structure for mutual need-based assistance to other Indian Ocean countries. The deep oceans will be the final 'inner space' destination for both living and non-living resources to fuel the economic growth of the nation and hence the need to build the blue water prowess of India. The foreseeable next revolution that will stimulate economy will be through marine biotechnology industry. The marine environment is a rich, untapped and inexhaustible source of bioactive molecules of intriguing potential and significance. The diverse ecology ranging from coral reefs to extreme habitats of the deep ocean are future prospective sites for natural compounds and genes that can provide next generation drugs for diseases and enzymes for new industrial processes. Deep sea pelagic fishing and near shore aquaculture can contribute substantially to the food security of India. The objectives should be to harvest the bio-prospecting components of marine organisms for biotechnological applications.

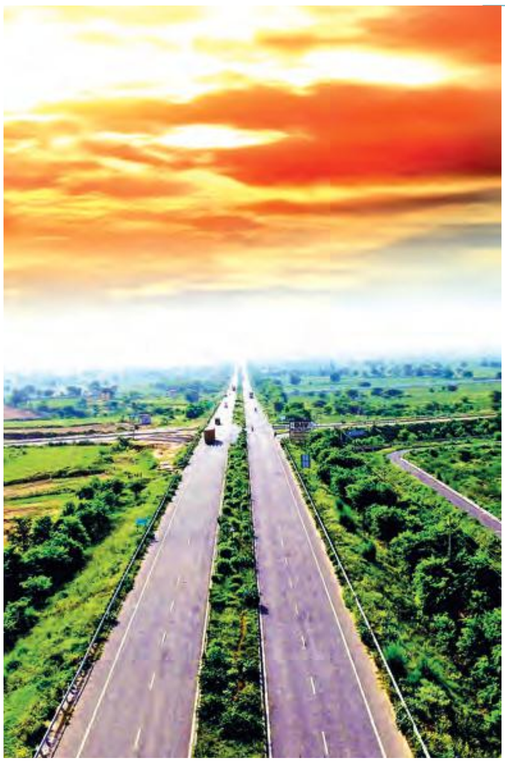
The ocean floor houses untapped valuable seabed mineral deposits and energy resources. Our EEZ which is two-thirds of our land area is yet to be fully explored for the potential resources which include beach placers, ferro-manganese crusts and phosphate nodules. These deposits are rich in Th, REE, Co, Ni, Li, & PO4, all scarce in our terrestrial deposits and are critical components in the nuclear, electronic, battery and fertilizer industry. Methane gas hydrates on both the flanks of the EEZ and other non-conventional sources of energy like wind, thermal and tidal have potential to contribute to the energy security of India. It is postulated that the biggest mineral deposits are in the international waters of the Indian and Pacific Oceans. The poly-metallic nodules (rich in Co, Ni, Mn) in the deep Indian ocean basin and the massive hydrothermal sulphides (rich in Cu, Zn, Ag, Au) on the mid-oceanic ridges are targeted to be mined in the near future. Thus, for India the opening up of the ocean bed mineral exploration and exploitation has enormous economic and strategic implications for the nation.

Underpinning the blue water economy is the need for the rapid development of marine technology that can provide us the cutting-edge tool for ocean observation, survey, exploration and exploitation of marine resources and safeguard the maritime and coastal assets of India for harbouring productive economic activity. Our ability of positioning the country in such niche technological and engineering areas can be achieved through integration of civil and defence R&D capabilities and skill sets in order to establish and support an indigenous medium and large marine technology enterprise. This should culminate into a new market segment of innovative maritime products and support services. Where required, we need to effectively leverage international collaboration to effectively catapult India as a maritime prowess in the foreseeable future.

Dr Arabinda Mitra holds a PhD in Marine Geology from University of Cambridge, U.K. As an Earth Scientist by training, he has held various scientific positions in the Departments of Atomic Energy; Ocean Development; and Science & Technology of the Government of India. At the National Centre for Polar & Ocean Research, Goa, he played a seminal role in formulating and implementing the long-term science strategy of the Indian Antarctic expedition and establishing the low temperature ice-core laboratory. In 2004, Dr. Mitra was appointed as the first Executive Director of the bi-national Indo-U.S. Science and Technology Forum. He proficiently enriched the scope and contents of Indo-American cooperation in Science, Technology and Innovation by linking academia, research laboratories and industry. Dr. Mitra assumed the position of Adviser & Head International Cooperation at the Department of Science & Technology in 2011, where he oversaw India's bilateral STI engagements with 44 countries across the globe including collaboration with Africa. In 2018, he was appointed as the Scientific Secretary in the Office of the Principal Scientific Adviser to the Government of India with the mandate to assess the national status in emerging scientific and technological domains, formulate policy interventions, develop national missions in S&T and render periodic advice to the Government.He has won several academic awards including Cambridge-Nehru Fellowship, ORS Award of UK; Bursary Award of St. Edmund's College UK; JSPS Award of Japan and was elected as a Fellow of the Geological Society, London. He has been a member of the Indian expedition to Antarctica and has undertaken scientific cruises to the Indian, Atlantic and Southern Oceans.

Unlocking Supplies in Land Market

When it comes to land market, some of the most pertinent questions at this point in time are: Can some excess public-sector land be exchanged for infrastructure, in a manner that is politically acceptable and economically efficient? Can selling out of public lands be a realistic source of finance for critically needed urban infrastructure investment?



PSU LAND PARCELS

- Defence Ministry has nearly 18 lakh acres
- Nearly 1.5 lakh acres are inside 62 cantonments and about 16.5 lakh acres out side their boundaries
- Union Railway Ministry has nearly 11.8 lakh acres
- Nearly 10.54 lakh acres are under operational handling and about 1.26 lakh acres are not in use
- BSNL has detected around 12 properties for monetisation and whichcan also be used for constructing infrastructure assets

A recent World Bank study suggested that India will have to consider and draw up strategies to unlock public land values to help finance urban infrastructure investment.

Now in the wake of the break-out of the pandemic, many economic analysts suggested the need for India to unlock supply in land markets not only to fuel strong economic growth but also to reduce land costs by 20-25 per cent. The most vital aspect remains unlocking land supply because land is the largest expense in real estate in general, affordable housing, in particular and over all infrastructure.

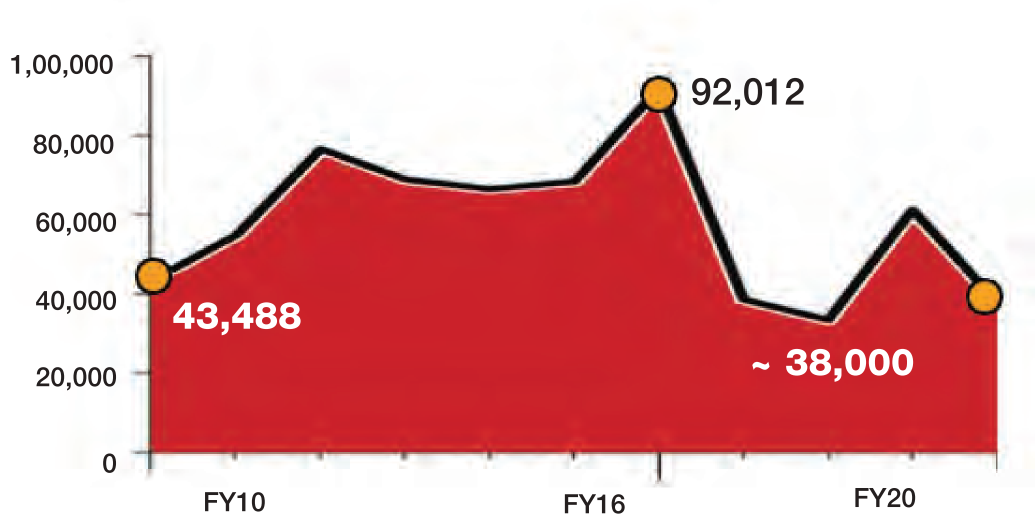
In the face of this, consider what the latest Economic Survey said. It has in fact termed investment in infrastructure quintessential to boost growth and added that post unlocking of the economy, infra sectors are poised for growth and construction of roads is expected to return to the same high pace, that had been attained before the COVID-19 break-out. Going by the Economic Survey, the infrastructure sector will be the key to overall economic growth and macroeconomic stability. The Economic Survey said that the country will require sustained and calibrated measures to facilitate the process of economic recovery soon after the crisis. These measures would enable the economy to get back on its long-term growth trajectory.

Towards A More Efficient Power Distribution

The power sector, globally as well as in India, is undergoing sea changes, which is palpable in the increasing deployment of clean renewables and the rising prevalence of grid-connected distributed generation. No doubt that these trends create churning and disruptions in the power sector, but they also create opportunities for new and innovative business models. If you call it a transition, then this transition is all the more challenging in India because of the poor operational and financial condition of the distribution sector. Ironically, the distribution part still continues to be the weakest link in the entire supply chain of the power sector. Most of the discoms are making huge losses, thanks to expensive long-term power purchase agreements, poor infrastructure, and inefficient operations, to mention a few. Interestingly, the Narendra Modi government at the Centre has recently given go ahead to a ₹3,00,000 crore power Discom reform scheme with the belief that the benefits of discom turn-around, driven by clean energy portfolios, will pay long-term dividends and foster clean energy transition.

The total loss by these companies is estimated to be in the order of ₹ 90,000 crore in FY2021. And

> POWER STRUGGLE : DISCOM'S LOSSES (₹ CRORE)

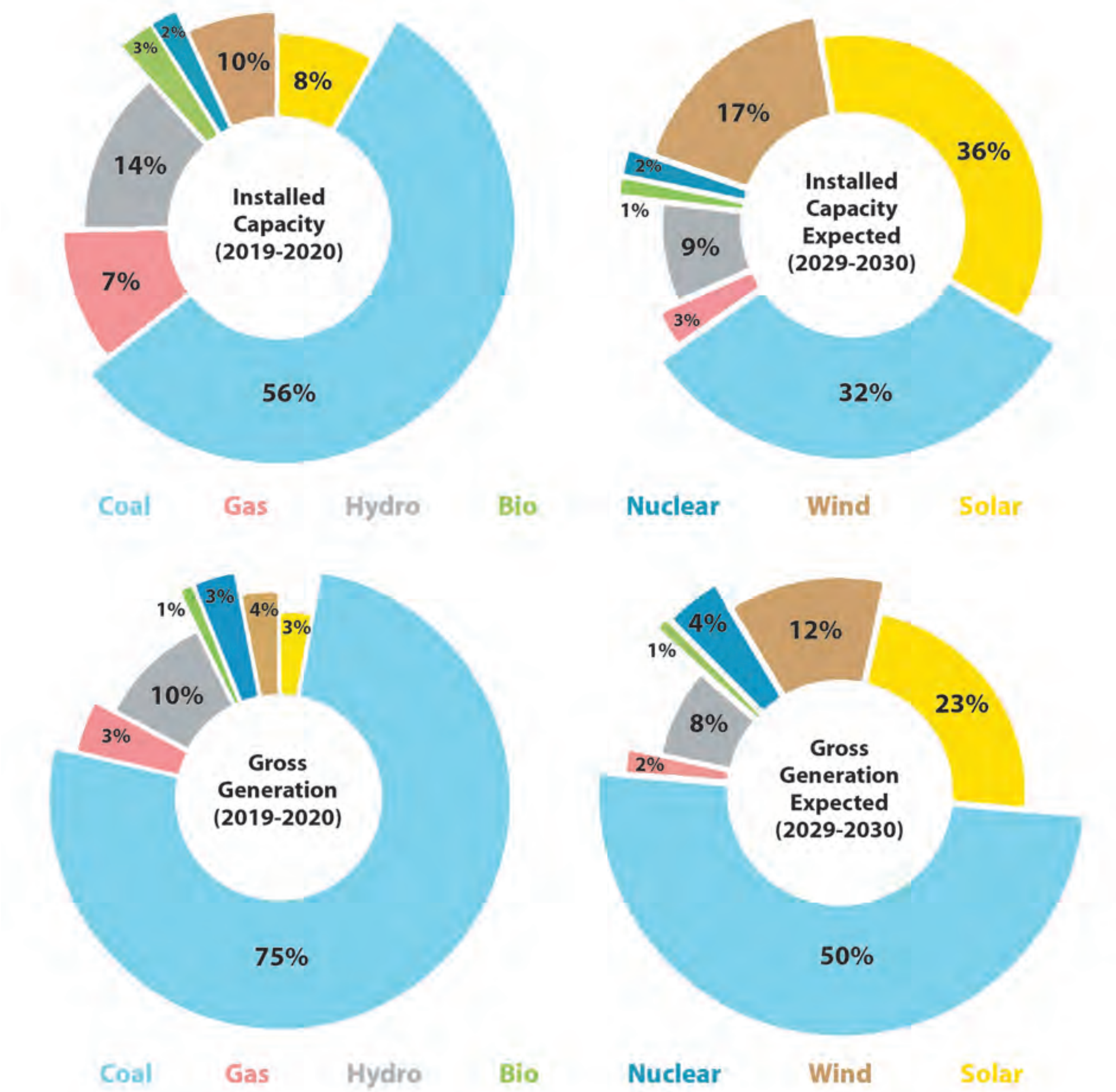


Source : Power Ministry

discoms are unable to pay for generators on time. An amount of ₹ 67,917 crore was overdue as of March, 2021. These companies are not being able to make the investments necessary for ensuring continuous high quality power, or build the infrastructure required to facilitate the transition from fossil fuel to renewable energy sources- solar, wind and so on.The Centre has taken up various initiatives to bring down the losses of power distribution companies (DISCOMs):

- Approval to a revamped distribution sector scheme, a reforms based and results linked scheme with the objective of improving the quality and reliability of power supply to consumers through an efficient distribution sector that is financially sustainable and operationally efficient.

> POWER SECTOR : DEMAND GROWTH, ENERGY MIX



Source : CEA JMK Research

- Successful execution of the scheme is expected to reduce the AT&C losses to pan-India levels of 12-15 per cent. The gap between average cost of supply (ACS) and ARR (average revenue realised) will also be brought down to zero by 2024-25.

- The scheme has a total capital outlay of ₹ 3,03,758 crore.

- Eligible discoms would be provided financial support if they want to upgrade their distribution infrastructure and smart metering systems (SMS) for the network as well as prepaid smart metering systems for consumers.

- A loss-making discom will have to draw up a plan to reduce the losses, list out the steps it will take to bring down losses and draw the timelines thereof. They also need to get their state government's approval, and file the same with the Centre.
- Nod to Liquidity Infusion Scheme: State governments are required to give undertaking to liquidate the payments due to the discoms on account of electricity dues of government departments/attached offices. They are to install smart pre-paid or pre-paid meters in government departments/attached offices and the likes.
- The state governments need to give undertaking to clear the dues of subsidies and to put in place a system so that the bills for subsidies are raised by discoms and paid upfront every quarter. They need to notify subsidy per unit of consumption for each consumer category.
- Going forward, PFC and REC will release against loans or government schemes considering the rating of discoms against the new corporate governance guidelines issued by the Centre.

Scale & Structural Drivers

India's scale is extraordinary. Consider these facts. One-fifth of the world's working age population will be Indians by 2025. There will be over 850 million internet users in India by 2030. And five largest cities of India will have economies of comparable size to middle income countries today, by 2035. Therefore it is not difficult to understand that there would be no market over the next 20 years which would offer more growth opportunities for overseas business than India.

And the Indian economy of 2035 will not be the same, for sure.The structural drivers are likely to keep India on a relatively strong growth path. Let us take a moderate view of the rate of growth up to 2035. Let us assume that it will be in the order of 6–8 per cent each year over the next 20 years. If that be the case, India will have incremental reforms rather than radical structural reforms. If India, which is already the world's fastest growing large economy, grows by 6–8 per cent each year for the next two decades, it will be transformative for India, as a whole, its region and its economic partners.With majority of India having scale, it will certainly overtake China as the world's most populous country by 2035. This, in turn, would mean a deep domestic market. And that large market is likely to make India the world's third largest economy by 2035 after China and the US measured by market exchange rates. Interestingly, when measured by purchasing power parity, India is already the third largest economy.

Chapter 3

INDIAN ECONOMY ON A RECOVERY PATH

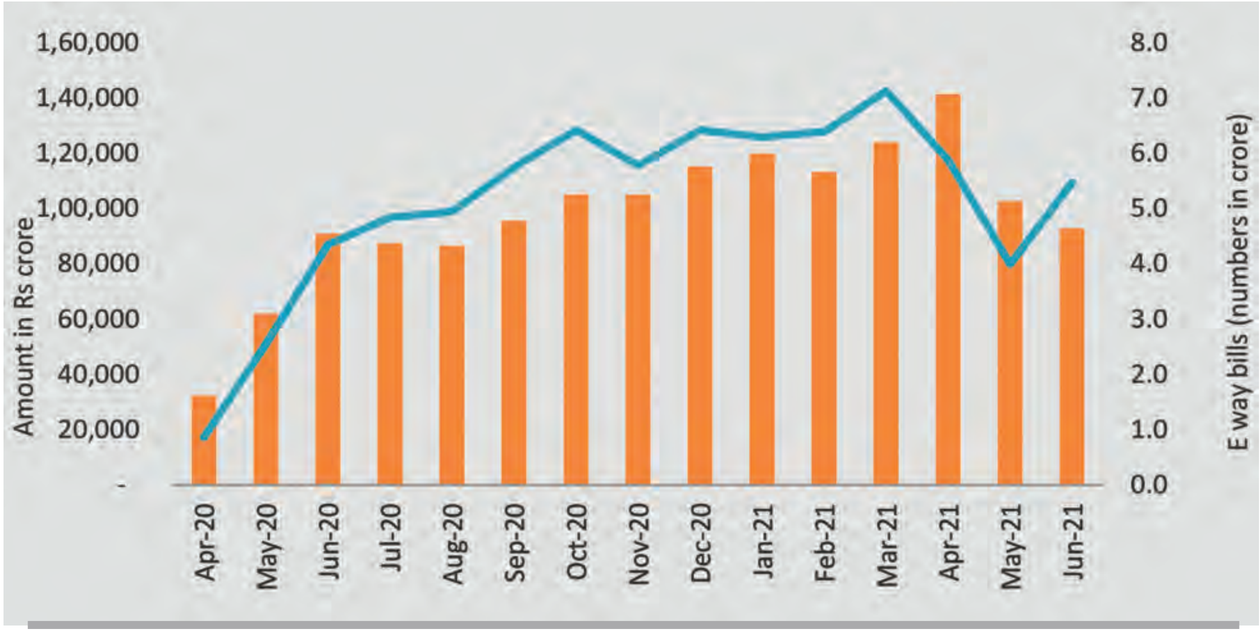
The shape of recovery may be debated, recovery is not. Indian economy has been on a recovery path. Being on the recovery path or choosing the growth drivers is just not enough. The right know how to finance or fuel that high growth agenda and efficient execution is going to be critical. India is doing exactly that - putting the right thrust on right places

Financing the Growth Agenda: The Way-outs

First the sudden break-out of the pandemic, then came the second wave and now the entire global economy stands threatened by the so-called third wave of the pandemic. Indian economy is no exception. And therefore it is not so easy for India's economic policy makers to draw up or have a well cut-out job or agenda. Nevertheless, India's government of the day, over last couple of months, has initiated a number of aggressive and well thought-out policy reforms, which are expected to support and boost the revival momentum. Going by McKinsey estimates, this reform agenda would entail a capital infusion of nearly $2.4 trillion in 2030. In FY 2020, this figure was nearly $865 billion. India's small and midsize companies will need access to over $800 billion in capital in 2030. The country will also need to finance government expenditure, budgeted in the range of 26 to 29 per cent of GDP each year till 2030.

The way-out lies in a three pronged approach. India will have to have a triple focus so as to ensure that investment returns to nearly 37 per cent of GDP. India had reached this level during high growth periods in the past. In FY 2020, it was 33 per cent.

> GST REVENUE COLLECTIONS (MONTHLY)



Note: GST collection from domestic transactions between 5 June to 5 July 2021.
Source: Ministry of Finance, BWR Research

The three pronged approach comprises

- Channelising more household savings to capital markets
- Reducing credit intermediation costs
- Streamlining public finances to allocate capital more efficiently.

If India manages to raise its household savings rate from the present level of 17 per cent to 19 per cent, India can actually meet the majority of its investment requirement from domestic sources of capital. Well, of course, within that household saving, India will have to increase the flows to financial rather than physical assets. In 2018, this was only seven per cent of the GDP. But in 2030, it has to be raised to 11 per cent of the GDP. Policy makers and economy managers will have to ensure that a higher share of household financial savings flows to productive firms through a deeper capital market. That's not all. Net foreign capital inflows, which at present, stands at 1.8 per cent, will have to move up to nearly three per cent of GDP.

Banking sector experts are of the view that India can jolly well bring down its cost of financing. All it has to do is to initiate measures to reduce the cost of credit intermediation in the banking system. If India manages to streamline public finances, that would come in handy for putting a fullstop to the "crowding out" of government funding. It would also allow market-linked interest rates on government small savings schemes. The government can also mull the idea of setting up a "special assets bank"- funded by private-sector. That will go a long way in resolving the NPA issues. There are international precedents of this. A similar 'bad bank' was established in Sweden in the 90s.

If estimates made by McKinsey Institutes are anything to go by, India can save nearly 3.6 per cent of GDP on an annual basis, on an average, over fiscal years 2021–30. At least, that potentiality is there. A more efficient subsidy and social spending, proceeds from successful privatisation of state-owned enterprises, monetizing assets like roads, railways, ports, airports, power infrastructure, and telecom towers, a greater tax buoyancy, power-sector reforms and market-linking small-savings rates — together can generate this much of savings.

Mobilising Finances

In the previous chapter we have mentioned about some soft loans, grants and schemes through which the India government is trying to raise some money in the medium to long term to take up some crucial development works, which are needs of the hour in the post pandemic period. However, the country needs to carry out certain structural reforms to bring about some fundamental changes in the long term for financing the high growth agenda. It's time to look at those aspects now.

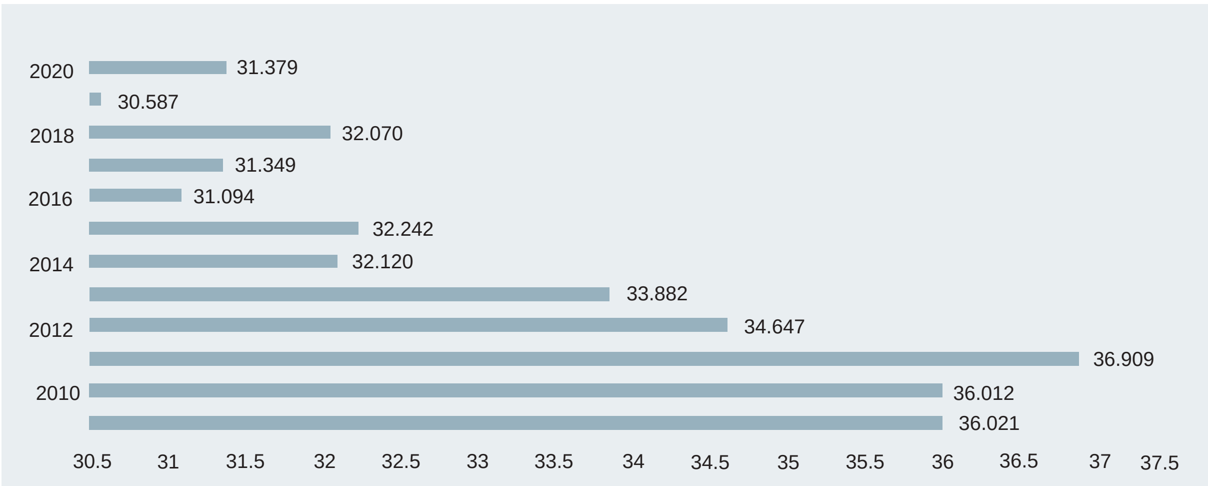
> Quite significantly, the richer households and businesses are witnessing their incomes and profits growing at a faster pace. Simultaneously, income and consumption are getting destroyed at the bottom

Irrespective of the degree and amount of domain knowledge in economics, one would appreciate that finance is the lifeblood of the economy. And when it comes to India's high-growth, high-productivity agenda over the coming decade, there is no doubt whatsoever that the country will need a big surge in investment to reach its goal or turn its dream into action. In India's case, in particular, the biggest challenge will be to unlock fresh sources of finance. It is indeed possible through concerted efforts to end the crowding out of household savings, by improved credit intermediation and through astute reforms to make government spending more efficient. Mind you that in the pre-COVID-19 fiscal year 2020, investment (measured as gross capital formation) was 33 per cent of GDP, its lowest level in over a decade. If India is to meet the challenge of accelerated GDP and productivity growth and large-scale job creation, investment will need to rise to about 37 per cent of GDP, which is about the level India has achieved in high-growth periods in the past. This implies the need to raise capital of almost $2.4 trillion in fiscal year 2030 and $1.5 trillion in 2025, compared to $865 billion in 2020.

It's a tall order, for sure. In the corporate sector, large and small companies alike would need to increase their share of capital formation from about 50 per cent in fiscal year 2018 to over 60 per cent—that is, about $1.4 trillion of capital, during this period. MSMEs alone would need about $800 billion in capital, or about six times the amount of capital currently deployed to support their growth, in 2030.

Within household savings, the share of financial savings is lower than the historical trend, at just 6.6 per cent of GDP in fiscal year 2018 (lower than the historical average of 10.6 per cent between 2000 and 2012). To finance growth, India needs to raise investment from 33 per cent to 37 per cent in 2030, while household financial savings would need to rise to 11 per cent of GDP, in line with the past. Net foreign investments (with outflows subtracted from inflows) would also need to rise to 3 per cent of GDP in 2030, from about 1.8 per cent in 2018, or to about $200 billion from $50 billion. Of this, net foreign direct investment would need to rise from 1.1 per cent to 1.8 per cent, in line with peers like

> GROSS DOMESTIC ANNUAL SAVINGS RATE : INDIA

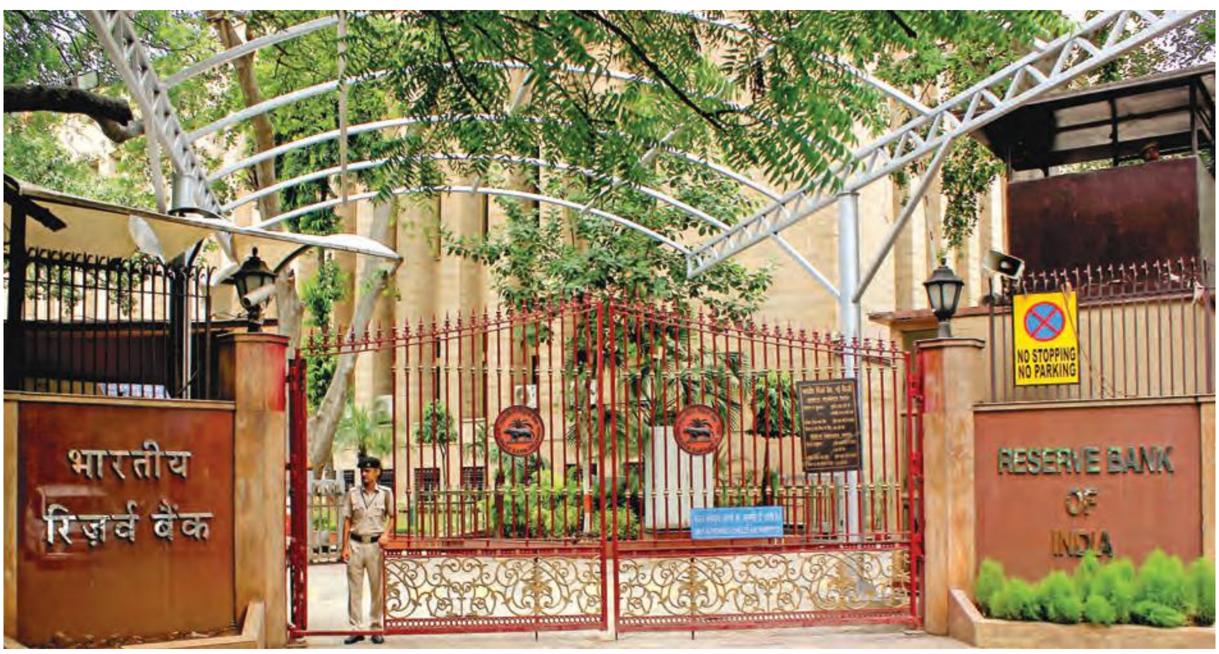


Source: www.CEICDATA.COM/ CEIC Data

China, South Korea, Malaysia, and Thailand. Then comes financing costs. Financing costs in India are generally high: in 2019, lending rates (fund- and non-fund based) were more than five percentage points in nominal terms above rates in peer emerging economies, driven by several factors. India could reduce the financing costs by about 3.5 percentage points, by taking steps to reduce the cost of credit intermediation in the banking system. One of the reasons that interest rates are high for India's firms is that the government crowds out funding for commercial enterprises. As per McKinsey estimates, financing costs are higher by 1.2 percentage points due to this effect. About half of all household financial savings in India, across banks, pension funds, insurance, and direct claims on government, are either used by the government to finance a structurally high fiscal deficit or for other directed lending objectives.

The next crucial issue, to be addressed is government spending. In India, the government's expenditure base is not fully supported by tax and other revenues, leading to a structural shortfall that is financed through household savings. This keeps the cost of financing high for commercial borrowers. Efforts have been made to trim the structural fiscal deficit since 2012, after the fiscal expansion following the global financial crisis. One key initiative that has consistently driven down the fiscal deficit is the implementation of Direct Benefit Transfer (DBT), which reduced the subsidy spend by about 1.5 percentage points over fiscal years 2013 to 2018. However, COVID-19 will have significant implications for government finance, raising both the central and state government deficits and the level of government debt relative to GDP. This can be done in the following ways:

- Increasing government subsidy
- Increasing efficiency of social service expenditure
- Implementing DBT for food, fuel and fertiliser
- Revamping PDS
- Introducing computerised allocation of food grains at fair price shops
- Improving access to remote healthcare

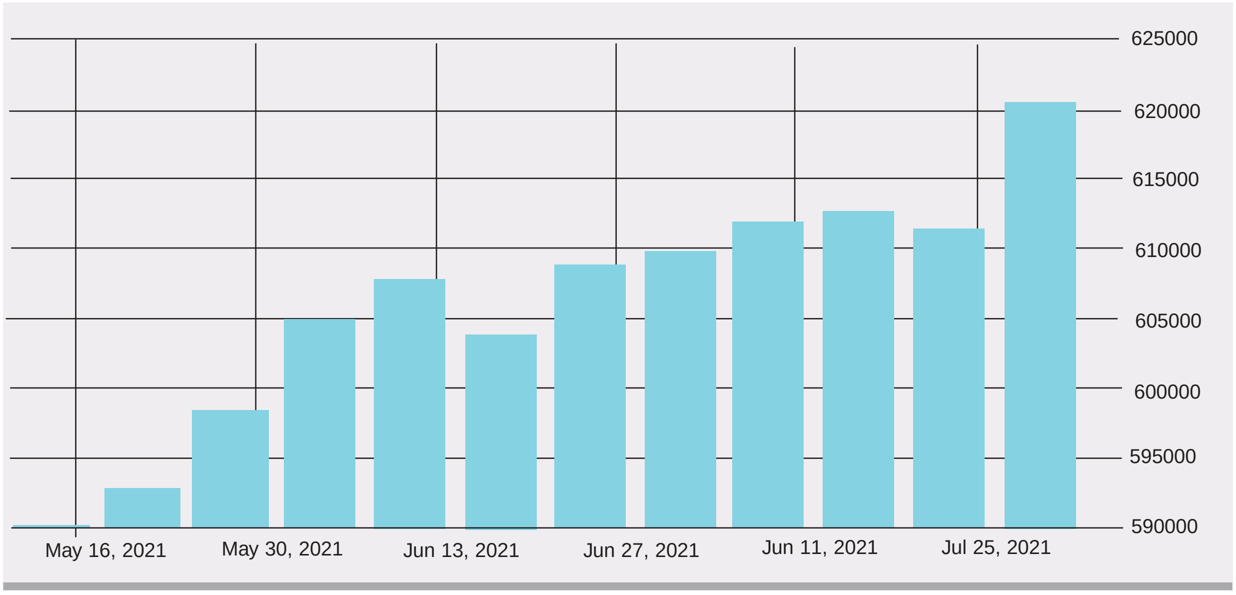


The switch to a system of full-fledged direct benefit transfers could yield average annual savings of about 1 per cent of GDP. In addition, a 10 to 15 per cent saving in administrative expense is possible, as DBT reduces the need for on-the-ground government machinery and thus personnel costs. Then, public capital and assets could be sold down and the proceeds used to finance growth-oriented spending, to the tune of incremental ₹4.6 trillion ($65 billion) or 1.4 per cent of GDP on an annualised average basis over the next decade.

India's idle dollar reserves augur well albeit with cautions

India's forex reserves are estimated to have exceeded $600 billion mark in 2021. RBI's job is to get engaged in both purchases and sales in the foreign exchange market and in its various segments actively. This apparently reflects a success story albeit with few words of caution and is an ample proof that the market and exchange rate system are in order, large global spill-overs notwithstanding. This forex

> INDIA'S FOREX RESERVES (IN RS CRORE)



Source: *Trading Economics.com, RBI*

reserve is the fourth highest in the world, ahead of Russia. This kind of dollar reserves certainly gives India macroeconomic stability, it needs. The country now has enough to pay for 18 months of imports, unlike in 1991, when dismal forex reserve (only for two weeks' reserves) had led to a crisis.

Mind you that the country needs foreign exchange to pay for importing crude oil, the lifeline of transport and logistics, vaccine supplies, steel and auto components. Accumulation of reserves gives strength to country's balance sheet.

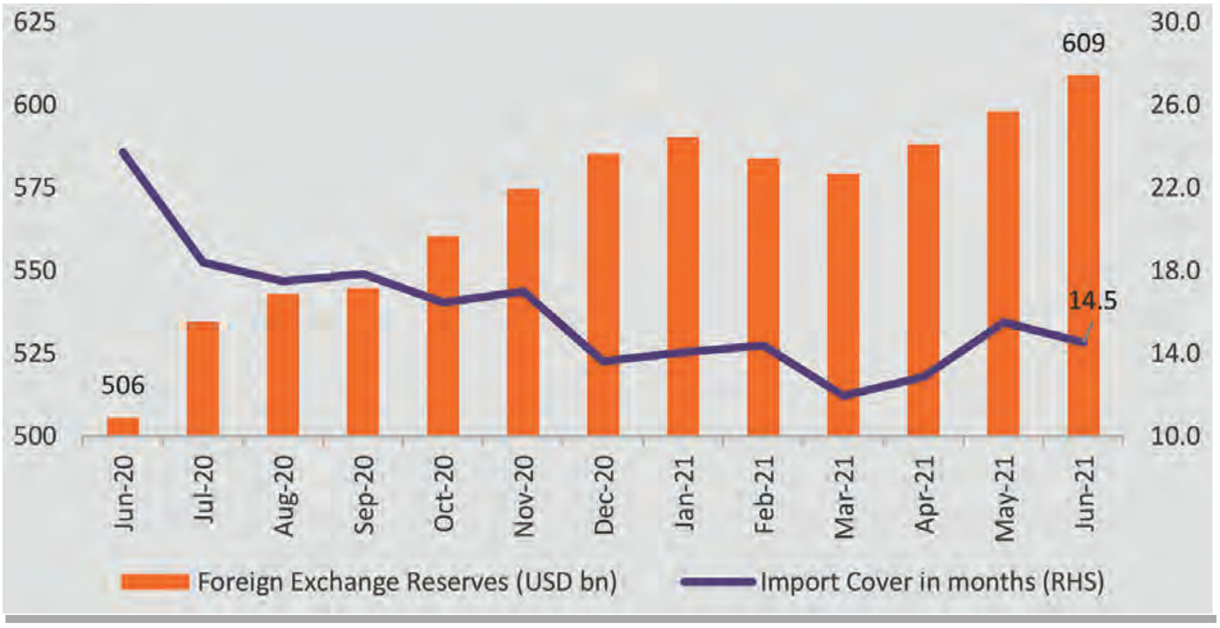
Going by RBI data, India's foreign exchange reserves moved up by $2.865 billion to a record high of $592.894 billion for the week ended May 21, 2021, driven mostly by gold and currency assets. Earlier, the forex kitty had been at its peak at $590.185 billion during the week ended January 29, 2021. The foreign currency assets comprise the effect of appreciation or depreciation of non-US units like the euro, pound and yen held in the foreign exchange reserves, all expressed in dollar terms.

It is pertinent to mention here that the balance sheet of a central bank primarily comprises government bonds and foreign currency holdings on the asset side, and cash with the public on the liability side. They are also in the form of bonds — the US government (or some other foreign nation's) securities. And the apex bank (RBI) earns interest on all bonds — foreign or domestic — that it holds, which is its interest income.

Isn't it interesting that the central bank earns interest on its assets and does not pay interest on its liabilities? For a large number of countries, their forex stock pile is all but the accumulation from years of earning more dollars than they spend. However, for India, it is just the opposite. India is possibly the only large Asian country with a current account deficit (CAD). This clearly means that the country imports much more than it exports. And nevertheless, India has large foreign exchange reserves. This can only be explained by the fact that India's CAD is offset by a large influx of capital flows, which comes through foreign portfolio investors (FPI) or as foreign direct investment (FDI). India has attracted nearly $500 billion as FDI over the last three decades. Then there have been external commercial borrowings. The total outstanding foreign loans stands at $560 billion, which nearly 93 per cent of India's foreign exchange reserves.

However, there are apprehensions as well. It doesn't take long for the stock market inflows, especially FPI, to make an about turn, suddenly and abruptly, because they often tend to be jittery and risk-averse. NRIs can withdraw large dollar deposits suddenly as well. Atleast that's what the 1990 experience suggest. One must also remember that large dollar pile earns little interest. And questions can also be raised if it is a healthy sign to keep purchasing power of Indian importers dependent on fickle foreign investors? RBI's balance sheet, which is measured in rupees, gets bloated by large dollar pile. Many economists would therefore like to argue that India must weigh options to diversify its forex holding away from the dollar. The country must examine the optimal size of foreign reserves to meet its needs and shrug off excess resereves.

> FOREX RESERVES & IMPORT COVER



Source: Ministry of Commerce, RBI, BWR Research

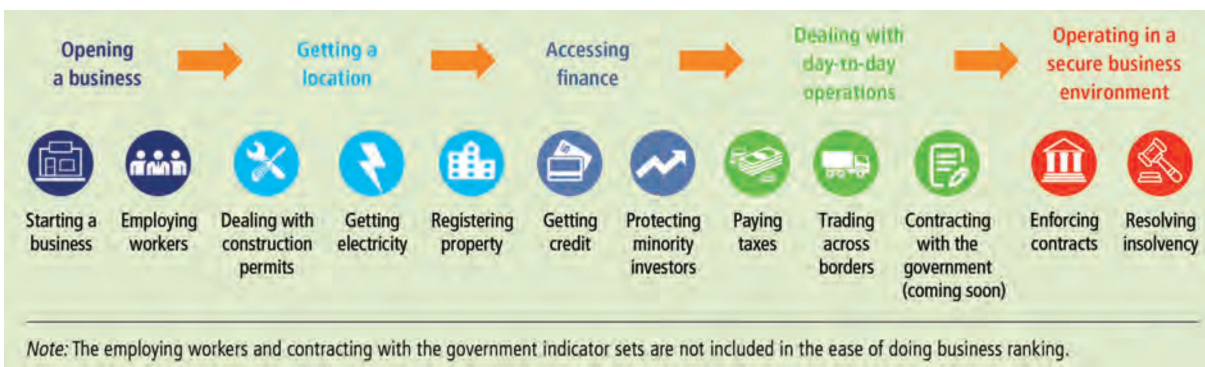
RBI, Govt come forward to support liquidity

Liquidity crunch was another of concern for the economy and the country as a whole. The Centre and the Reserve Bank of India rose to the occasion and took more than one steps to support liquidity. These steps included increase in limits of ways and means of advances, relaxation of rules governing withdrawals from the consolidated sinking fund (CSF), enabling bond markets to absorb pressures of increased government borrowings, to mention a few. The surplus systemic liquidity, on its parts, ensured softening of 10-year G-sec yield and reduction of spread with AAA corporate bond yields. Precisely the same time, the average spread of AAA rated 3-year corporate bond, which had been 171 bps in May 2020, fell to 22 bps in December 2020. That's not all. The spreads on AA rated corporate bonds- for 3-year and 5-year bonds- also moderated from 243 bps to 113 bps and from 177 bps to 117 bps respectively. These were uncertain times, by all stretch of imagination. Demand and supply situations- both domestic and globally- got disrupted severely. Nevertheless, the external sector offered the much-needed cushion to India. True, in the wake of the demand, supply disruptions, India's merchandise exports fell by 21.1 per cent in the first half of 2020-21 and imports dropped by 38.8 per cent. Exports, bounced back gradually as the rate of contraction eased to 5.0 per cent in Q3, 2020-21. India's non-oil exports increased by 2.3 per cent during the quarter, much to the relief and pleasure of India's power that be.

Then came the phase wise unlocking resulting in some good news for the imports sector in the third quarter of the year. Imports moderated to 8.3 per cent during that period. India's trade deficit, which had gone up to as high as $88.9 billion in April-September, 2019-20, came down to $26.2 billion one year down the road. It again went up to $31.2 billion in the Q3, 2020-21.

But mind you that even that figure was lower than the corresponding figure ($37 billion) in the

> WHAT IS MEASURED IN DOING BUSINESS?



Source: World Bank Doing Business Report

previous year. India's exports of services was high in the first half of the year and that in turn helped India register a current account surplus of 3.1 per cent of GDP. Then with the successful roll-out of vaccinations across the world, there are reasons to expect that demand scenarios will be normalised over a period of time.

It would not be a wrong notion to believe that with all these policy prescriptions and their proper implementation in place, the coming decade for India could be one of high growth, gainful jobs, and broad-based prosperity. It is an opportunity not to be missed.

Ease and cost of doing business

India's ranking in the World Bank's 'Ease of Doing Business Rankings' galloped up 79 per cent in the last four years. The country moved up from 130th position in 2016 to 63rd position in 2020 and earned a special citation as one of the ten economies that had made the most improvement across three or more dimensions.

This clearly means that otherwise the fastest-growing economy in the world is finally gaining acceptance as a favourable destination for new business and new manufacturing facility. The government of the day has come up with a number of business-friendly reforms and sought to cut red-tapism in the last few years, which, in turn, allowed India to move up rapidly and get into the list of top 100 countries. The journey should not stop there and the target from here should be to find a berth in coveted top 50 bracket. Consider what the World Bank has to say about India's progress in this regard. It says that

India's impressive progression in the Doing Business rankings over the past few years is a tremendous achievement, especially for an economy that is as large and complex as India's. Besides the special focus given by the top leadership of the country, the persistent efforts made to drive the business reforms agenda, not only at the central level but also at the state level, helped India make significant improvements.The government at the Centre has identified as many as 6,000 burdensome compliances, both at the central and states levels, which need to be simplified or done away with to make doing business easier. And this has to be done through a systematic exercise. These compliances, mostly falling under the jurisdictions of five ministries- commerce and industry, finance, health, corporate affairs and mines - have an adverse impact on time and cost of businesses.

If things move the way it has been envisaged, the entire exercise would be carried out in two phases. In Phase-I, work is already underway for bringing down regulatory burden across six areas including renewal of licences, assigning inspections randomly, standardisation of returns/lings and digitisation and simplification of all manual records or procedures.

The focus, in phase-II, would be on four areas: de-criminalisation of regulations, identification and repealing of archaic laws and rules, and intensive use of new-age digital technologies.

The new Foreign Trade Policy, therefore, needs to tackle several issues

True, India needs to promote local manufacturing by all means. And in this context, the recently announced Production Linked Incentive (PLI) scheme is a good initiative. It promises to promote local manufacturing in sectors that have the potential to scale up globally, like mobile and electronic equipment, pharma, and textiles. Under this PLI, manufacturers will be incentivised by the government on incremental sale of goods based on certain eligibility criteria for five years.

This initiative has been taken at a time when many multinationals are moving out of China, especially in the post-Covid period. The scheme is expected to lure them to establish units in India. Many transnational companies are learnt to have started talking to their Indian counterparts for getting relocated to India. But it will not happen so easily. Mind you that, since the break out of the US-China trade war, only three out of 56 companies had relocated to India as of October 2019. Vietnam, in this case, has been a clear winner with 26 multinational companies having set up shop there.

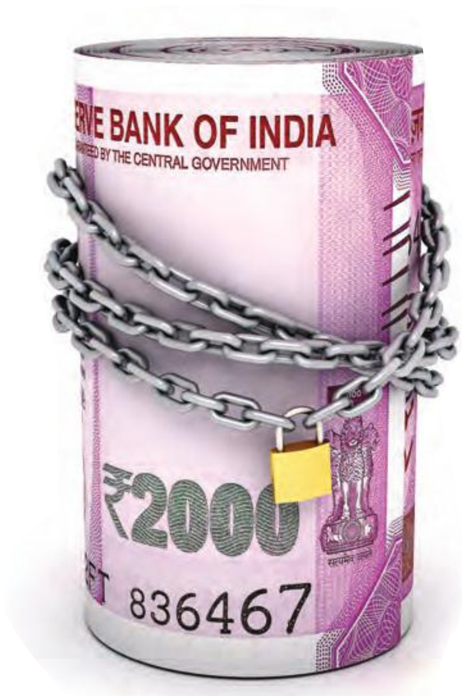
The fact that India could not attract enough MNCs moving out of China can be attributed to a large number of problems, that Indian manufacturing sector is facing. Indian manufacturing sector's contribution in GDP has been 16-17 per cent in the past decade, while Chinese manufacturing sector's share is nearly 40 per cent in that country's GDP.

Having said these, one must remember that manufacturing infrastructure also needs to improve significantly. One way of achieving this could be by way of setting up SEZs for sectors identified under the PLI scheme. The new FTP should pave the way and facilitate exporters to explore the under-tapped markets. India needs to revive its ties and association with Africa through trade and investment. Finding ways of increasing people-to-people cooperation and providing technical support to exporters to understand the legal and business environment is also need of the hour.

Import tariffs for several product categories have been raised since 2018. With the ambitious goal of 'Atamnirbhar Bharat' in mind, the Union Budget also increased the duties on a few more product categories like mobile handset and auto components. This aims at developing domestic capabilities in the identified sectors. What is important here is that a 'sunset clause' needs to accompany all such protection.But now, many economists think that the government should gradually phase out of import tariff, especially for strategic partners. In the last couple of years, the US has raked up the issue of high tariff time and again. The US is now India's largest trading partner, in 2019-20 bilateral trade between the two nations stood at $88.75 billion.

As the new Biden-regime appears favourable towards India, it is important to resolve tariff issues quickly. Moreover, these protectionist measure could hamper India becoming a part of the global value chain if continued for long.

Bad banks and small banks



Indian financial system, which is estimated to be $1.86 trillion, got into the pandemic at a time when the economy had already been weakened by nearly $140 billion of bad loans at its banks. A liquidity crisis at so-called shadow banks had actually started in 2018. Business activity collapsed after Prime Minister Narendra Modi's government introduced some of the world's strictest shelter-at-home rules in response to the coronavirus. The economy is forecast to shrink to the lowest level in more than four decades. The Reserve Bank's stress tests show the bad-loan ratio will rise to 13.5 per cent (from 7.5 per cent a year ago) by September 2021, the highest since 2000. The total amount of bad loans stood at around $106 billion as of September, 2020.

Even before the COVID-19 pandemic broke out, the stress had slowly but steadily blown into a crisis. Indian economy has been stressed with non-performing loans for quite some time now. And the government and the Reserve Bank of India (RBI) have, over time, introduced several measures to arrest the rising growth of stressed assets.Thus came up the concept of 'Bad Bank' as one of these supporting measures.

Now what's a bad bank?

It's an institution, where a struggling financial institution can put assets, it wants to get rid of from its own books and eventually to sell or unwind. These are businesses or holdings that are dragging the bank down. These include risky and illiquid derivatives or delinquent loans. One has to keep in mind here that everything inherited isn't necessarily bad. The stressed asset can also include unwanted assets that are no longer core to a firm. Significantly, a number of global lenders had set up such divisions in-house following the 2008 financial crisis, at times with taxpayers' assistance.

The 2021 Union Budget envisaged the setting up of a bad bank in the form of an asset reconstruction company or an asset management company. An entity like 'Bad Bank' is supposed to purchase stressed assets from banks, restructure them and sell them to investors, seeking to resolve them over a period of time. In the process, the banks selling such stressed assets will be able to clear their balance sheets and consequent adverse implications and use their capital more optimally. Although there is no clarity about the constitution and funding of such an entity, what is known at this point in time is that the new structure would aggregate bad loans from Indian banks and in the process help them clean up their strained balance sheets. There is lack of clarity over ownership, control and mechanism. There are indications that banks may capitalise it, at least initially. It would aim at being "cash neutral", for sure.

The concept of ‘Bad Banks’ has its positives and negatives (or areas of concern). First let us look at the positive sides.

There are more positive aspects than ones

- Partial ownership of the proposed bad bank by private banks is expected to improve price discovery and related transparency in the sale of stressed loans by banks.
- Only part ownership by public sector banks would translate to lesser burden on the exchequer.
- With the backing of a sovereign guarantee, private banks are expected to be incentivised to participate in the capitalisation of the bad bank.
- Permitting Alternative Investment Funds to invest in the bad bank would widen the capital pool and involve market participation, for sure.
- Various credit guarantee schemes introduced by the government to improve accessibility of cheaper credit to MSMEs may see fruition, as banks will have increased availability of capital to lend to MSMEs. While we may be able to take inspiration from the success of bad banks in foreign markets, its impact on the Indian market depends on its implementation.

What are the concerns then?

Like all policy moves, there could be unintended consequences, if one depends too much on the details. If ownership were to rest with the Indian banks, where the loans originated, the transfer price may risk being inflated. That could eventually end up freezing the growing secondary market for distressed credit. It could also deter foreign funds, which have been showing burgeoning interest in the opportunity. It is understandable that without new external capital to help bolster the fragile financial system, taxpayers could be left on the hook. The biggest challenge in translating this plan into action would be funding for the bad bank. The bad bank must be well capitalised. Mind you that it will only get a limited amount of capital from reserves allocated to the acquired assets.The decision to have a bad bank is certainly good in principle. Its success will however depend on the way it is executed. Given that execution and quality control is often India's Achilles heel, it will not be an easy task to ensure success of bad banks on the ground. People who raise questions or are sceptical about the move, point out that Indian banking suffers from non-disclosures of stressed assets (NPAs) — as the RBI's Asset Quality Review (AQR) revealed in 2016.

Mind you that India has already seen five resolution mechanisms to fail since 1980s:

- Board for Industrial and Financial Reconstruction (BIFR) under Sick Industrial Companies (Special Provisions) Act, 1985 (SICA)
- Private Asset Reconstruction Companies (ARCs) under Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act of 2002)
- Strategic Debt Restructuring (SDR) scheme of 2015
- Sustainable Structuring of Stressed Assets (S4A) of 2016

Indian policy makers and economy managers, therefore, will always have to keep in mind that policy coordination is vital to any strategy to resolve stressed assets, given the fact that there are many stakeholders involved in the process.

IoT will drive growth in insurance sector

Facts first. The Union Budget-2021 increased the FDI limit in insurance from 49 per cent to 74 per cent. India's Insurance Regulatory and Development Authority (IRDAI) has announced the issuance, through Digilocker, of digital insurance policies by insurance firms. The same Budget document proposed that the initial public offering (IPO) of LIC will be implemented in FY22, as part of the consolidation in the banking and insurance sector. Though no formal market valuation has been undertaken, LIC's IPO has the potential to raise ₹1 lakh crore. A corpus of ₹16,000 crore was allocated for crop insurance scheme, and in June 2021, the Centre extended a ₹ 50 lakh insurance coverage scheme for healthcare workers across India until the next one year. Besides, in February 2021, the FinMin announced to infuse ₹ 3,000 crore into state-owned general insurance companies to improve the overall financial health of companies.

All these moves were initiated as the future looks promising for the life insurance industry with several changes in regulatory framework, which eventually will lead to further change in the way the industry conducts its business and engages with its customers. Mind you that the overall insurance industry has reached nearly $280 billion at the end of 2020. Going forward, the Life insurance industry in the country is expected to increase by 14-15 per cent annually for the next three to five years.

Sector analysts think that demographic factors such as growing middle class, young insurable population and growing awareness of the need for protection and retirement planning will support the growth of Indian insurance sector. Having said these, one must also keep in mind that the scope of IoT in Indian insurance market will go beyond telematics and customer risk assessment. There are already more than 110 InsurTech start-ups operating in India. The number will only go up in the days to come.

Anand Pejawar

President-Operations, II & International Business
SBI Life Insurance Company Ltd

How Insurance sector can drive growth in next decade in India

Analysing future trends is tricky, especially just after exiting a year that altered the usual way of life and living. However, to traverse from the new normal to the next, it is imperative to understand why and how India's insurance sector will shape up and propel the economy in this decade. Let us first revisit the trends playing out before the pandemic forced the world into a suspended animation.

Insurance markets globally were on a solid growth path. Total direct premium written grew nearly 3 per cent in 2019, outpacing real GDP growth in over 60 per cent of insurance markets worldwide.

India's share in the global insurance market was 1.69% in 2019 (1.58% in 2018). Total insurance premium (life and non-life) increased 9.21% (6.9% inflation-adjusted), much above the global growth rate of 2.34% (2.9% inflation-adjusted).

In life insurance, India ranked 10 among the 88 insurance markets, with a 2.73% share in 2019. However, life insurance premium increased 9.63% (7.30% inflation-adjusted), significantly above the global rate of 1.18% (2.20% inflation adjusted).

Globally, the share of life insurance in total premium was 46.34% while that of non-life was 53.66% in 2019. In India, the share of life insurance was significantly high at 74.94%; non-life was at 25.06%.

Insurance industry in India

There are 57 insurance companies (24 life and 33 non-life). Gross premium collected by life insurance companies increased from ₹ 2.56 trillion (US$ 39.7 billion) in FY12 to ₹ 7.31 trillion (US$ 94.7 billion) in FY20. New Business Premium (NBP) recorded a CAGR of 15% to ₹ 2.13 trillion (US$ 37 billion).

Low insurance penetration and density

Overall insurance penetration (premiums as a percentage of GDP) reached 3.71% in FY19 from 2.71% in FY02. In the first decade of sector liberalisation, penetration (ratio of First Year New Business Premium to GDP) increased from 2.71% in 2001 to 5.20% in 2009. Since then, it started declining to reach 3.30% in 2014 before rebounding to 3.76% in 2019. Insurance density (ratio of premium underwritten to total population) of life insurance rose from USD 9.1 in 2001 to reach USD 55.7 in 2010. Since then, it had been on a decline before trending up from 2016 to reach USD 58 in 2019. It is evident that a large part of the population is either 'not insured' or 'under insured'.

The "Why" factor

Very high protection gap in India

The mortality protection gap (difference between the cover typically required by a family and the available resources, should a wage-earner pass away suddenly) is huge in India. In fact, it's the highest in the entire Asia Pacific region at 92.2. Simply put, an average Indian has savings and insurance of just ₹7.80 for every ₹100 needed for protection.

Pure term plans gain traction

Since 2018, there has been an upsurge in demand for pure term plans, with more and more people realising the criticality of pure term products. Earlier, only savings (traditional and ULIPs) products used to find favour. The pandemic has also played a key role in ascertaining the criticality of insurance. *Increased government push since 2015.* The 'need of insurance' in the most under-insured parts received a major push with the introduction of schemes like:

- Pradhan Mantri Jeevan Jyoti Bima Yojana – PMJJBY (life insurance of ₹ 2 lakh at ₹ 341/year)
- Pradhan Mantri Suraksha Bima Yojana (accidental insurance of ₹ 2 lakh at ₹12/ year) and the
- Atal Pension Yojana (APY).

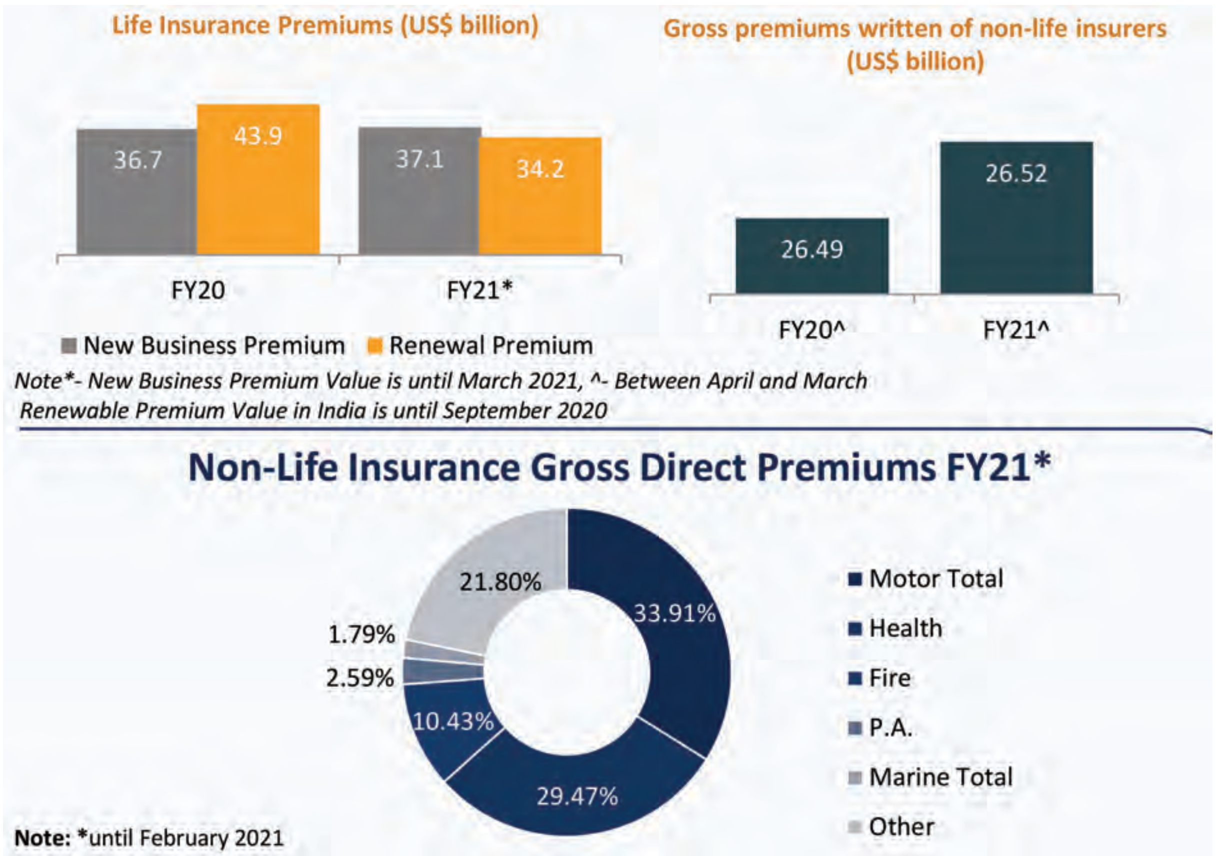
Proactive and supportive regulator

Regulatory support is an important driver for any sector in the growth stage. The IRDAI has been proactively addressing the requirements of the industry – from simplifying processes and systems to KYC / AML regulations and designing products like the Saral Jeevan Bima plan (simple pure term plan, launched by some in January 2021). The regulator has also defined the contours of a simple Annuity Product, which will be shortly made available to the public.

Increased foreign direct investments (FDI) cap in the insurance sector to 74%.

The Indian insurance sector was first opened up in 1999-2000 by allowing 26% FDI. It was raised to 49% in 2015 and further to 74% in 2021. This bodes well for investment inflows into the sector. It will also facilitate the entry of new players, leading to higher demand for a trained and experienced workforce and increased employment opportunities in the market.

> GROWTH OF INSURANCE BIZ IN INDIA



Source : IBEF

The "How" factor

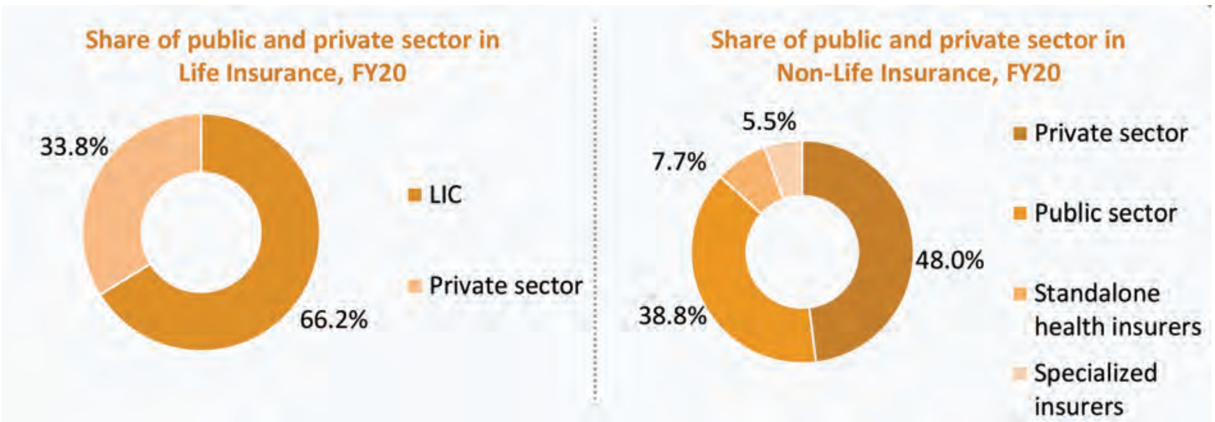
Increased distribution factor

With the need for increased distribution, insurance companies will be looking at increasing their footprint (Feet on Street) in smaller cities and with larger sales force.

Huge employment generator

Apart from the distribution side which will need significant 'Feet on Street' (FoS), the industry will also require people to design new and innovative products, serve customers with operational efficiency, maintain IT systems and processes, HR professional for recruitment and IT professional to develop digital products. Increased investments in IT and digitalisation. There is a growing need to develop apps that cover the entire gamut – from sourcing to conversion to settling of claims to monitoring. Further, the need for remote monitoring and management has never been felt more. The industry is witnessing significant growth in Digitech and Insuretech firms. Work From Home (WFH) has forced organisations to look at various secured systems and invest in the same like VDI, VPN in a big way. This would also

> INSURANCE GROWTH : PUBLIC VS PRIVATE



Source : IBEF

require upscaling back-end support systems, including investments in Infosec Security system. All of this will be a huge investment by organisations, which has been fast tracked, due to pandemic.

Stability in stock markets

Insurance companies form a large group of regular investors in the India markets (both Equity & Debt). This helps in maintaining the much-needed stability and provides a cushion against any sharp fall.

Value unlocking through listing

Today, a handful of insurance companies in India are listed. Many more companies will go public in the near future, providing opportunities for investors (domestic and FIIs) to raise their insurance exposure. Going by the latest indicators, it can be said with certainty that the Indian economy emerging out of a pandemic-induced recession in a better than expected way. The insurance sector is already showing its inherent attractiveness. In fact, sentiment towards all the three segments – life, non-life and health – is positive, with the return to pre-pandemic levels expected by the end of FY20-21.

A favourable macro environment, coupled with the positive industry-specific trends, will not only propel the insurance businesses, but also drive large-scale employment generation and investment opportunities till 2030. As such, Insurance industry will truly propel the Indian economy in this decade.

References: Various news items, Swiss RE report and IRDAI Annual Report 2019-20

With more than 37 years of experience in banking, financial services and insurance sector in various capacities, Ananda Pejawar is currently President-Operations, IT & International Business, SBI Life Insurance Company Ltd. An alumnus of University of Bombay and K C College of Management Studies, Pejawar had previously served Life Insurance Corporation of India (for 19 long years), cooperative banks, various foreign banks in India and abroad and various other financial services companies. He attended a number of top management development programmes in different parts of the world including BNP Paribas-Cardiff, France, Indian Institute of Management-Kolkata, Indian School of Business, Hyderabad, Alumina of the Columbia Business School, Manhattan, New York. He was appointed on the "Pension & Insurance Sub Committee" formed by Reserve Bank of India in October 2016 to represent Life insurance industry.

India must forge new alliances and craft new economic strategy in new world order

Piyush Goyal had presented the Interim Budget 2019-20 in Parliament as the then Union Minister for Finance, Corporate Affairs, Railways & Coal. And while tabling the interim budget, Goyal said that with a comprehensive ten-dimensional Vision, the government of the day will create an India where poverty, malnutrition, littering and illiteracy would be a matter of the past. India would be a modern, technology driven, high growth, equitable and transparent society. This summed up the government's vision for the next decade (that is till 2030).

The ten dimensions included:

- To create physical and social infrastructure for ten trillion dollar economy and to provide ease of living.
- Digital India led by the youths with innumberable start-ups and million of jobs.
- To make India pollution free by focusing on Electrical Vehicles and renewables.
- Rural industrailisation using modern technologies to generate massive employment.
- Clean rivers, with safe drinking water to all Indians and efficient use of water in irrigation using micro-irrigation techniques.
- Besides scaling up Sagarmala, India's coastline and ocean waters will power development
- Through our space programme - Gaganyaan, India becoming the launch-pad of satellites for the World
- Self sufficiency in food production and producing food in the most organic way.
- A healthy India by 2030 and a distress free health care and wellness system for all. Ayushman Bharat and women participation would be an important component in it.
- Employees working with elected Government, transforming India into Minimum Government Maximum Governance nation.

However, the COVID-19 pandemic has completely altered the global political and economic landscape. The old ways of interacting with the world are not likely to work in the aftermath of the pandemic, and India must rethink its economic diplomacy programme for the next decade, while keeping the basic guiding principles intact. India will need to craft new strategies for engagement in the global economy and forge new alliances.

Venkataramana Sastry

DMD (Global Markets)
State Bank Of India

A Vision: India 2030

Debt, Equity and Hybrid Funds VS Corporate bonds – Future in India

Over the next 10 years India is going be a much larger economy. Even with conservative estimates of nominal growth, India's GDP will be multiple times larger than its current size of around USD 2.8 trillion. At the same time, it is also likely that our credit to GDP and equity market cap to GDP ratios will also expand, in line with other large economies. This means that the size of both the Indian equity market, as well as the Indian debt market will be multiples larger than their current size.

As per International Capital Market Association (ICMA), US and China dominate the global corporate bond market currently with outstanding of USD 0.9 trillion and USD 7.4 trillion respectively out of a global total of USD 40.89 trillion (as of August 2020). In comparison, Indian Corporate bond market outstanding, as per SEBI data, was just around USD 460 billion (as of September 2020). Currently, China's economy is five times that of India's, while its Corporate Bond market is 16 times that of India's. Another way to look at it is in terms of the percentage of GDP size. China's corporate bonds outstanding to GDP ratio is 52%, for US it's 51%, while for India its just 16% of GDP. This shows the scope for growth of Corporate Bond market in India.As an investor, whether you would be better off investing in Corporate Bonds or into various asset classes through Mutual Funds depends on your level of knowledge and sophistication. Investing in Equity funds of course should not be compared to investing Corporate bonds as they are a different asset class altogether and have very different risk and return profiles.

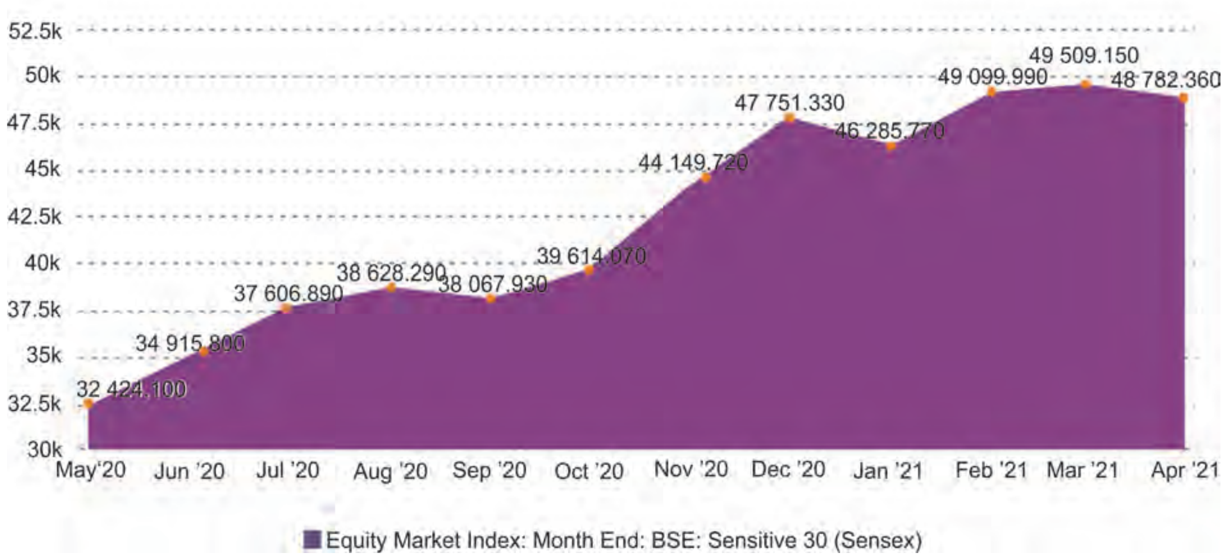
The mutual funds (MF) industry has played an important role in the development of corporate bond market in India by catalysing innovation, price discovery, liquidity and transparent bond valuation. And fortunately, for a retail investor, MFs are among the best routes for investment, whether in debt or in equity. Though it is not impossible for individual investors to beat mutual fund returns, the latter are usually better equipped to analyse the pros and cons of an investment and have a clear edge over most retail investors. One important thing to note when comparing investment in a debt fund vs investing directly in a corporate bond is the price risk which is there in a debt fund. When you invest in a corporate bond and hold it till maturity, there is no price risk, and you are only bearing credit risk. Debt

funds, except FMPs, don't have a specific maturity, and even in case of an FMP, your return is not fixed at the time of investment. For an equity investment, picking a good fund can also be a challenge for retail investors, as unlike debt funds, the returns of various funds, even within the same category of funds can differ significantly.

For institutional investors, the choice between debt funds and Corporate bonds could depend on the purpose of the investment. If the purpose is to hold till maturity for a specific yield, direct investment in Corporate bonds may be preferable given that, ignoring re-investment risk, the yield is determined at the time of the investment. But if the purpose is for trading, then both debt funds and corporate bonds can provide opportunities.In the last few years, Indian regulators and the Government have taken numerous steps to develop the Indian debt market, especially the Corporate bond market. Implementation of the Insolvency & Bankruptcy Code, electronic bidding platform for large issuances, uniform stamp duty across states, corporate bond repo including tri-party repo, etc., are just some of the important reforms.

RBI is also making some important changes to the regulations related to the interest rate and credit derivatives markets, which will aid in the development of the Indian debt market over the next decade. Although the bond market in India has become broad-based in terms of participation, availability of a variety of instruments and development of repo and derivative markets it still lacks depth. This is mainly because of structural impediments in the markets, including dominance of issuances by financial sector entities, prevalence of private placements, asymmetric market liquidity, and restrictions on institutional-investor allocations to non-investment-grade bonds. Hence, unless there is a robust

> EQUITY MARKET INDEX (APR 1979-APR 2021)



Source: WWW.CEICDATA.COM, BSE LTD.

secondary market, the bond market will continue to be characterized by a few players and sectors. A well-developed corporate bond market can truly address some of the travails of the existing bank-based financial system.

Several policy measures can be considered to enhance the bandwidth of the market. Apart from rationalising the stamp duty on corporate bonds across States, development of a liquid market for Credit Default Swaps and steps to incentivise public issuance/listing warrant priority. Additionally, the investor base in the corporate bond market remains narrow due to high risk perceptions. In this context, the role of credit rating agencies in disseminating information on the issuers of corporate bonds remains critical. Credit rating agencies also help in identifying the presence of junk bonds in the market. In principle, Government of India and the regulators need to keep working further on minimising the residual obstacles for the deepening of the bond markets.

Shri Sadhu Venkataramana Sastry, a graduate in Science from Government College, Anantapur, Andhra Pradesh joined State Bank of India as a Probationary Officer on 01 st October, 1985.Shri Sastry has held various assignments in the Bank both in India and abroad during his career spanning 34 years.After his initial banking stint in the North East at various Branches including as Branch Manager, he worked as a forex dealer between 1996 and 2003 in Mumbai.He held the position of Chief Dealer at SBI Frankfurt and Chief Dealer at SBI London between 2003 and 2008.As Deputy General Manager (Treasury Management Group) at the Bank's Corporate Office in Mumbai, he was overseeing treasury operations of overseas offices between 2008 and 2011.As General Manager (Network II) in Ahmedabad Circle he was leading retail operations of around 400 branches. As General Manager (Forex) at the Banks' Corporate Office in Mumbai he was overseeing the forex operations of domestic offices.Subsequent to his promotion as Chief General Manager, he was heading SBI DFHI Limited (a Standalone Primary Dealer) as MD & CEO from November, 2017 till May, 2020.Presently he is Deputy Managing Director (Global Markets) in State Bank of India, Mumbai.

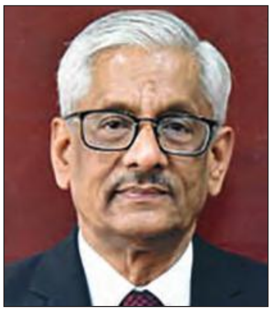
MFI sector may see consolidations in days to come

The pandemic and its multi-pronged effects are few of the most talked about topics for any country around the globe. Microfinance sector in India also got hit by this pandemic and is facing another big crisis after 2010 AP amendment bill and 2016's demonetisation. Small and micro loans serve large segment of population running small and micro enterprises mostly in unorganised livelihood domains. Going by the latest MFIN report (March, 2021), the sector currently caters 3.22 crore clients with gross loan portfolio of ₹74,371 crore. This converts to average loan amount of ₹22,000 plus for all active accounts, which shows 6 per cent YoY increase. The sector holds a strong position, when it comes to return on investment in monetary and social returns. Earning capacity of MFI clients is on the wane and that in turn is now becoming a threat to MFI existence. The government, on its parts, is trying to smooth out its operations through rescheduling of loans.

Most Microfinance takes weekly/fortnightly repayments from customers, who have little in the form of savings and for whom the sharp drop in economic activity would have meant almost immediate defaulting on their loans. In addition to this, Moratorium was a big relief for the borrowers to resume their occupation and regain confidence in microfinance institutions.

The Reserve Bank of India's (RBI) move to bring harmony across class of lenders in microfinance field has gone down well among the MFIs. Considering the various kind and sizes of lenders operating in the sector this was the need of the hour. It will certainly improve lending in the sector as well as safeguard the interests of the borrowers.

One has to keep in mind that if mid and small-sized MFIs are unable to mitigate liquidity risk during this challenging period, they may become potential candidates to be acquired by larger entities, eventually triggering major consolidations in the MFI sector. Lenders have started investing in the microfinance sector. Consolidation in microfinance industry may have a positive impact and will also give ultimate benefit to the borrowers.



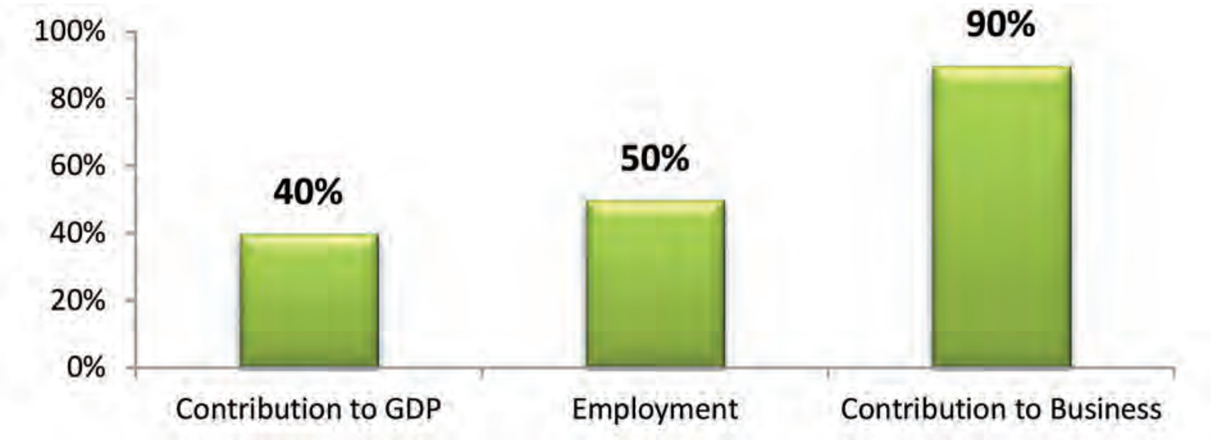
Shashi Ranjan Sinha

Chairman cum Managing Director
Saija Finance Private Ltd

Microfinance and Financial Inclusion and MSME as growth drivers

Micro small and medium enterprises (MSME) comprise the backbone of all developed and developing economies across the globe. Above all it accelerates human capital formation and development, the sine qua non for rapid economic development of any nation .In fact, seven of the fourteen sustainable development goals identified by the World Bank, namely 1- No poverty. 2- Zero Hunger. 3- Good health and wellbeing. 4- Quality education. 5-Gender Equality. 6-Clean water and Sanitarion. 7-Affordable and Clean Energy, is best attained by a rapid MSME Development.

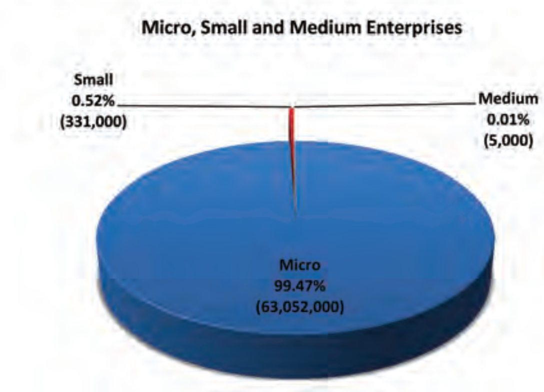
> MSME CONTRIBUTION GLOBAL



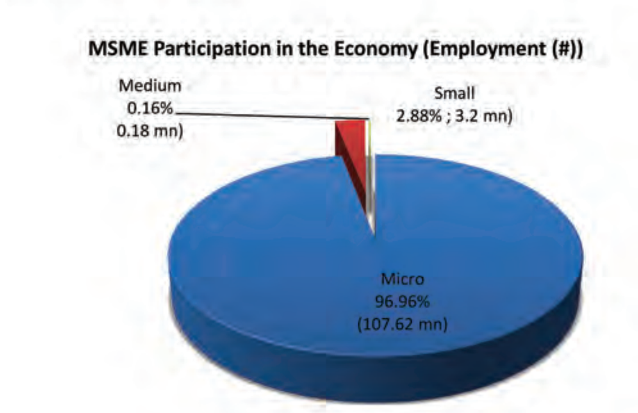
A precursor, to MSME growth is financial inclusion, which means that individuals and businesses have access to useful and affordable financial products that meet their needs -bank accounts for facilitating payments and savings, credit and insurance - delivered in a responsible and sustainable way. Microfinance institutions play a stellar role in the above.

Microfinance has become one of the widely accepted business model in the world to eliminate poverty and improve the financial lifestyle of poor people by providing financial inclusion in the parts of the country where banking services are not accessible. The Microfinance model focuses on the

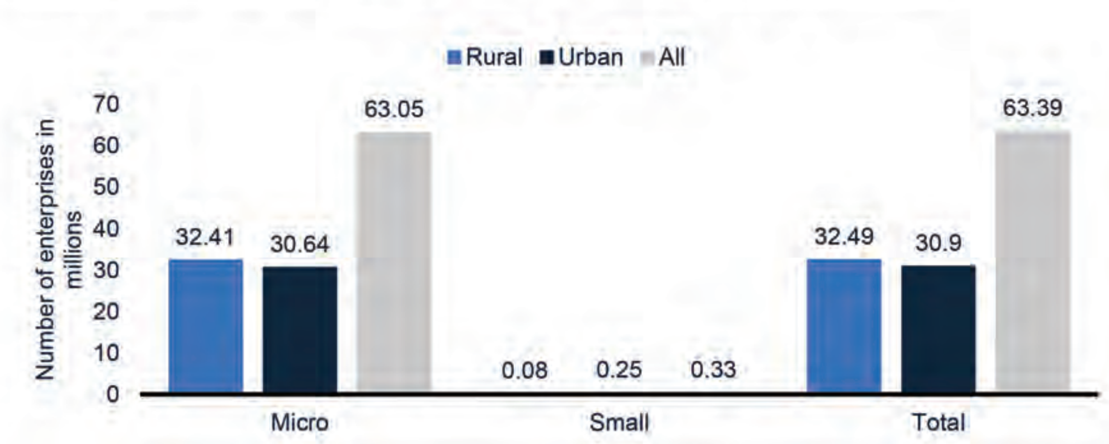
No of Enterprises:



Enterprise per 1000 people:



Number of micro, small and medium enterprises across India by type (in millions)



upliftment of the society by providing microcredit and entrepreneur opportunity to people in urban, semi-urban, and rural areas. For Government of India, financial inclusion is a major concern for which they are consistently putting effort and use the Microfinance model to provide credit access to unserved population of rural India.

In Asian economics, South Korea and China are the two countries which have leveraged significantly from MSME growth. In South Korea, MSMEs constitutes of 99% of establishments and 89% of total employment. Similarly, in China MSMEs represents 99.7% of establishments and 95% of total employment. The contribution of MSMEs to GDP for China has increased from 15% to more than 60% and for South Korea it has increased from 10% is more than 50%.

China, in just two decades, has become a global superpower and today may not match USA in military might, but definitely in financial inclusion space .This meteoric rise has been backed by a robust MSME platform.

MSMEs play an important role in the economic upliftment of a country, specifically in developing countries. Globally, MSMEs account for more than 90% of business and 50% of employment. Formal MSMEs contribute up to 40% of Gross Domestic Product in developing countries. According to World Bank estimates, by 2030, MSME will absorb approximately 600 mn jobs and this makes the development of MSMEs a top priority for countries around the world.

The Indian Micro, Small and Medium Enterprise sector is the foundation of Indian economy and contributes to about 30% to Gross Domestic Product. The Indian MSMEs represents appx. 6.1 percent of the manufacturing and 24.6 percent of the Gross Domestic Product from service activities. The Indian MSMEs sector employs about 120 mn of the workforce and represents about 45% of the overall exports. The year on year growth of the Indian MSME sector is over 10% and around 20% of the MSMEs are located in rural areas representing rural employment in the sector.

Key indicators of India MSME sector (source Ministry of MSME):

- India today is well poised for an exponential growth of MSMEs. A few developments in the sector are listed below:
- The no of Micro, Small and medium Enterprises in India has grown by a CAGR of 18.5% from 2019 to 2020.
- The statutory bodies KVIC, Coir Board, NSIC, NII- MSME, and the MGIRI are aiding to MSME with the Government schemes.
- The Government is investing in MSME by providing various schemes in the areas of credit, infrastructure, Skill Development, etc.
- Lastly, the Micro enterprises in India comprises of more than 99% in number of enterprises, enterprise per 1000 people and MSME participation. The upliftment of the Micro enterprise will have multiplier effect not only to the MSME segment but also to the India economy as a whole.

Mr. S.R. Sinha (Chairman Cum Managing Director) promoted SAIJA with the objective of using his professional experience, knowledge and networking abilities to provide financial services to the poor and underprivileged people who have not been covered by the formal financial system. Mr. Sinha has over 35 years of experience in retail banking, housing finance, and insurance. An alumnus of Faculty of Management Studies (FMS), Delhi University, Mr. Sinha was the founding Managing Director of Maharishi Housing Development Finance Ltd (MHDFL), an NBFC, promoted by the Maharishi Foundation. MHDFL became a very strong player in the first 3 years of its operations with one of the best growth rate in the housing finance sector and a 100% recovery record. Under the innovative and dynamic leadership of Mr. Sinha in less than 4 years, asset under management of MHDFL increased from INR 200 million to INR 1000 million. Subsequently, the portfolio of the company merged with ICICI Bank. Mr. Sinha subsequently worked for Lord Krishna Bank, as Senior Vice President, Retail Assets and as Country Head – Cross Sell with Centurion Bank of Punjab. Six years ago, Mr. Sinha returned to Bihar and promoted SAIJA Consultants Private Limited which became the second franchise office of Reliance Life (out of 50 today) in the country. It was one of the first to achieve INR 30 million worth of business.

Economic Reforms: On the right track, but much more needed

With a sharp decline in new Covid infection simultaneously with ramping up of the vaccination programme, India has witnessed continued macro-economic stability and resilience in economic recovery. A strong track record towards reform implementation in the last six years is also believed to have come in handy in the process of economic recovery. There is no doubt that India's consistent and continuous wide-ranging reforms make the country an attractive destination for foreign investment and India continues to rise as a global economic powerhouse.

The ₹ 6.28 lakh crore economic stimulus and relief package announced post pandemic was also tailored to meet the basic requirement of investors. Then there was the budget initiative pertaining to the International Financial Services Centre (IFSC) at GIFT City and reiterated the government's commitment towards developing it into a globally competitive hub for innovation and financial activities to serve the Indian economy and the region as a whole.

India has also progressed in areas of policy and taxation. The Union Budget 2021-22's responsive and responsible focus towards resolving investment and tax assessment issues, asset monetisation and privatisation of most of the sectors are just cases in point. Other relevant reforms included the new bankruptcy code, the National Goods and Services Tax. These have certainly helped to gain in India's doing business ranking, moving up rapidly in the World Bank's Ease of Doing Business index, up to 63 in 2020, from 100 in 2018. This has been a significant progress indeed.

However, there is no place for complacency. The importance of further economic reforms, including labour, product mixed land, and others, and additional infrastructure investment can hardly be over-emphasized to attract even more investment, and to ensure sustainable and more inclusive growth in India.

Dr Arun Singh

Global Chief Economist
Dun and Bradstreet

Investment-enhancing reforms key to India's economic recovery to a higher and sustainable growth trajectory

One year of COVID-19 global pandemic, some countries are witnessing the 2nd and 3rd wave, and battling the fourth most severe global recession in the past 150 years. India is no exception. India's economy contracted for the first time in four decades and its path to recovery remains challenging.

However, we believe the investment-enhancing measures will place India on a stronger and sustainable growth trajectory. India has decisively tilted its strategy towards investment and infrastructure creating initiatives from direct consumption boosting measures.

The network effects of infrastructure assets and higher multiplier effect will help India recover the lost output compared to direct in-hand consumption measures which would be channelized more towards savings. Studies show that public investments create strong economic impulses and are more effective than other support measures. Public investment multipliers tend to exceed other forms of public spending such as tax or transfers by around 0.3 to 0.8 units. Before the pandemic struck, India had already created the blueprint for infrastructure investment in its ₹ 111 trillion (~US$ 1.5 trillion) National Infrastructure Pipeline (NIP) for achieving a US$ 5 trillion economy. The task now lies in execution. The crowding-in of private investment following the government spending would lead to additional growth impulses. Research suggests, for every ₹ 20 spent by the government on infrastructure, the private would spend ₹ 10 with a lag period. Given the current thrust, we expect the investment rate to increase from around 30% in FY20 to over 39% by FY27.

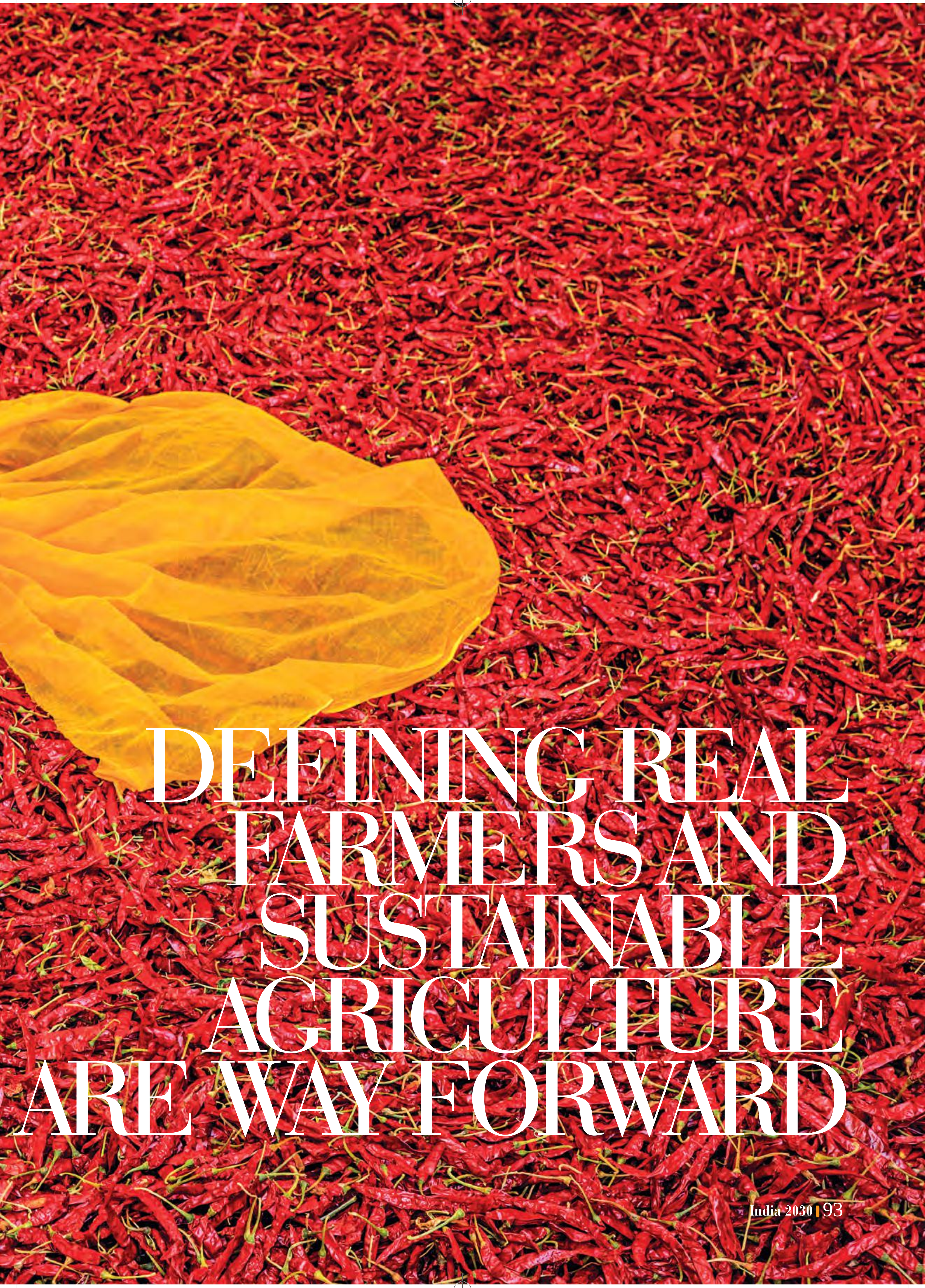
However, the task of financing infrastructure projects worth ₹ 111 trillion is daunting. India's Infrastructure has been mostly financed by banks which are now burdened with stressed assets. The government, in the Union Budget FY22, has taken up a host of measures to facilitate infrastructure financing, most of which was envisaged in the framework for NIP. However, given the ambitious target and the absence of robust private sector investment at least in the near term, a regulatory revamp to utilise the surplus dollar reserves with the RBI can be considered. Nonetheless, the question of how much reserves should be preserved to adequately cover trade and capital outflow risks and how much

funds should be spent on infrastructure assets will be a difficult choice. India's forex reserves are higher in relation to several conventional rules of the thumb for reserve adequacy which stipulates that reserves should be equivalent to three months of import coverage, 20% of the broad money and 100% of outstanding short-term external debt with residual maturity of 1-year (the Greenspan-Guidotti rule). Currently, India has an import cover of 18 months, its forex reserves are more than 21% of broad money as on Feb 2021 and more than 200% of short-term external debt with residual maturity of 1-year as on Dec 2020. Further, empirical analysis, although done for pre-pandemic period, suggest that India's reserves are adequate to cover a broad set of external sector risks and stress scenarios including the Lehman type crisis.

While it is clear that the government is committed to the Keynesian principal of spurring infrastructure and channelising economic multipliers to boost GDP growth, the success of the programme lies in the execution. The government and the RBI will have to walk a tight rope of deriving the maximum benefit out of the idle surplus forex reserves while minimising unintended consequences such as an eventual increase in the complexity of monetary management at the same. Successful execution of the current envisaged infrastructure projects could propel India's GDP to reach US$ 5 trillion by H1 FY27 and US$ 8 trillion by 2030.

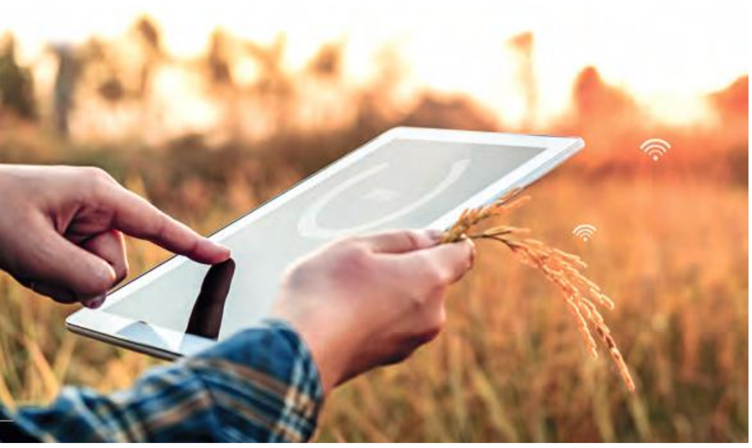
Dr Arun Singh is currently the Global Chief Economist at Dun & Bradstreet. A professional economist with more than 15 years of rich experience in Macroeconomic Research, Econometric Modelling & Forecasting, Customised Research, Industry Research across various sectors, Economic Strategy & Planning and Handling P&L, he has produced multiple theme reports & publications, risk framework for sectors and countries. His area of work has spanned across quantitative & qualitative economic research, econometric modelling, forecasting, analytics & industry research across a wide spectrum of sectors. Areas covered under economic research include real sector, public finance, monetary and fiscal policy, external sector, and infrastructure & social sector.

Agriculture



DEFINING REAL FARMERS AND SUSTAINABLE AGRICULTURE ARE WAY FORWARD

Ask anyone what is the most debatable and most controversial issue that the current union government faced in the recent past and the answer would invariably be the Farm Laws. The three laws, namely, Farmers (Empowerment & Protection) Agreement of Price Assurance & Farm Services Act 2020, Farmers Produce Trade & Commerce (Promotion & Facilitation) Act & Amendment to Essential Commodities Act, which had been enacted in September, 2020, are still being opposed by the farmers, mostly from Punjab, Haryana and western Uttar Pradesh, on grounds that these laws would eventually pave the way for eliminating the safety cushion of MSP (minimum support price) and do away with the mandi (wholesale market) system, leaving them at the mercy of big corporates. The government, on its parts, feels this will remove middlemen and allow farmers to sell their produce anywhere in the country. Independent rating agency thinks that the Indian government remains reform-minded as evidenced by the passing of agricultural and labour market reforms and these reforms could actually lift economic growth, if the government can address the implementation risks properly, particularly for the agricultural reforms which have met stiff resistance by farmers. Getting deeper into the issue, according to many, any agriculture policy has to first and foremost address the problem of price parity. Now whether this should be ensured through MSP-based procurement, paying the difference between MSP and the market price, or simply per-acre transfers—that should be looked into by the government. The government should also look into if farmer interest would be better served by the government guaranteeing a minimum income rather than price support. But agricultural economists are of the view that these are details that can only be worked out once there is clarity on the number of farmers for whom crop prices actually matter. According to many definitions, a real



Government Repeals Farm Laws

In a curious turn and twist of events, India government almost suddenly withdrew three controversial farm laws after facing massive farmer protests across the country for more than a year. Apparently, the stunning announcement came on the day of the festival of Guru Purab, when Sikhism founder Guru Nanak's birthday is celebrated, (mainly) in Punjab and in other parts of the country. It actually coincided with the run-up to the state legislative assembly polls in Uttar Pradesh and Punjab. Mind you that thousands of farmers from Punjab, Haryana, Uttar Pradesh and Rajasthan have been camping outside Delhi since November 2020, demanding that the "black laws" be withdrawn. The sudden climb down by the government, understandably, raised more questions than one including whether long-term economic gains and reforms have been sacrificed for political goals.

The main purpose of the new farm laws was to open up markets, by way of allowing farmers to sell produce outside of designated 'mandi' yards. However farmers were apprehensive that with the yards falling into disuse, state procurement of food grain at assured prices would wither away. Similarly, farmers were also suspicious about the government's promised long-term purchase contracts with private buyers. They feared that they might be exploited by big business groups as in the proposed new scheme of things, disputes wouldn't be adjudicated in a civil court but settled by officials.

Many economic thinkers feel that the power of markets, unleashed by these three laws, might not have solved India's truly complex eco-political problems magically, but would have been a right step in the right direction, offering the right fillip to the Indian agriculture sector.

Whether proposing the new farm laws or repelling them was the right move- only time will tell.

farmer is someone who derives a significant part of his/her income from agriculture. And such a farmer is required to grow at least two crops in a year.

Quite interestingly, one gets varied figures from various sources. Going by the last Input Survey for 2016-17 by the Union agriculture ministry, the total operational holdings stood at 146.19 million. The NABARD All India Rural Financial Inclusion Survey in the same year put the figure of country's agricultural households at 100.7 million. And then the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) has around 111.5 million enrolled beneficiaries, with an average of 102 million-plus getting payments during 2020-21. It would therefore be safer to consider India's farmer population to be in the range of 100 million to 150 million.Now let us digress from this issue to another crucial and most talk about issue, facing the sector- that is sustainable agriculture practices. Ironically, according to a study by the Council on Energy, Environment and Water (CEEW) and supported by the Food and Land Use Coalition (FOLU), less than 4 per cent of Indian farming population has adopted sustainable agricultural practices and systems. There is no doubt that scaling up of sustainable agriculture would be critical to improve farm incomes and bolster India's nutrition security in a climate-constrained future.

If as a country, we can embrace sustainable agriculture that could not only lead to better incomes for farmers, especially small and marginal farmers, but could also have multiple environmental benefits. Sustainable agriculture has the potential to help diversify farmers' sources of food and income, thereby making farming climate resilient, optimising use of natural resources and re-building ecosystems. Besides, this also offers a vital alternative to input-intensive farming. This, therefore, is going to be the way forward.

Sanjiv Puri

Chairman and Managing Director,
ITC Limited

Powering NexGen Agriculture, Creating Sustainable Livelihoods

Agriculture is the lifeline of the Indian economy. As much as 70 per cent of rural households depend primarily on this sector for their livelihoods besides providing employment to nearly 55 per cent per cent of the total workforce in the country. However, agriculture contributes around 17.8 per cent of the country's GVA, highlighting the chronic challenges of low productivity, investments and incomes. Compounding this is the threat from depleting natural resources such as ground water and top soil as well as the increasing impact of extreme weather episodes caused by climate change.

It is mission critical to usher in NexGen agriculture and take farmer incomes to a higher orbit to trig-

ITC

ger a virtuous cycle of consumption, investment and employment. This assumes more importance as India's population is slated to rise to 1.5 billion by 2030, putting immense pressure on food, feed, fibre and livelihood security among others. Therefore, it is indeed heartening that the Government has spearheaded several measures to provide a policy thrust and an enabling environment to give new wings to the agri-food sector.

The food processing industry and the wood-based sector, both at the intersection of agriculture and industry, have the potential to radically transform agriculture, generate significant livelihoods along the entire value chain and contribute to raising farmer incomes. Today's consumers are looking for more variety, better quality, healthy and nutritious food besides seeking assurance on safety and hygiene. This offers myriad opportunities to diversify farm production to more remunerative and value-added crops like vegetables, fruits, pulses, and so on.

India is blessed with the largest tracts of arable land. With increasing productivity, it is crucial to promote agri exports to enhance farmer incomes. Currently, at $35 bn, India's global market share in agri-exports is only 2.5 per cent. A recent report of a High-Level Expert Group on Agriculture (HLEG) prepared for the 15th Finance Commission estimates that there is potential to double India's agri-exports by strengthening the competitiveness of agri-value chains in areas that are aligned to global demand and where the country has inherent advantages. According to an estimate by the National Geographic, the planet must produce more food in the next four decades than all farmers in history have harvested over the past 8,000 years.

The recent policy measures announced by the Government are pathbreaking and will bring about a paradigm shift in enhancing investments in the agri-food value chain, spur innovations, accelerate technology adoption and contribute to raising farmer incomes. Encouraged by the Government's policy impetus, ITC has proposed to build on its century-old engagement with agriculture to support nearly 3800 FPOs with more than a million farmers across 24 crop value chain clusters in 21 states, shaping competitive agri value-chains and enhancing farmer incomes. ITC's world-class Indian food brands, like Aashirvaad, Bingo!, Sunfeast, B Natural, among others, already support vibrant agri value chains in the wheat, potato, fruits, spices and milk segments.

Similarly, the opportunity in wood-based agri industry is enormous given the potential for import substitution, livelihood generation and to enhance farmer incomes. ITC, for example, has pioneered a competitive and renewable fibre value chain over several decades that has greened over 8,50,000 acres and supported 150 million-person days of employment besides creating a carbon sink. An innovative Agro-Forestry intercropping model has also been promoted to enhance farm incomes from both food and wood value chains. Recent policy interventions are also providing impetus to the domestic agarbatti value chains by enabling import substitution. It is interesting to note that by promoting cultivation of bamboo for the agarbatti industry domestically, 22 million person-days of employment can be generated besides creating an additional income opportunity of ₹1300 crore for farmers annually. ITC has already developed such bamboo plantations including in the North East.

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The recent policy measures announced by the Government are pathbreaking and will bring about a paradigm shift in enhancing investments in the agri-food value chain

Undoubtedly, NextGen agriculture will call for concerted and coordinated action on several fronts. However, to my mind, there are 3 critical levers to pivot transformation of this sector.

First is the need to strengthen climate resilience given the increasing vulnerabilities of the agri-food sector. Climate change could lead to alarming consequences on agriculture and crop productivity. At present, nearly 600 million of our population face high to extreme water stress. Estimates suggest that wheat yields could get reduced by 50% in the Indo-Gangetic plains by 2050 if no action is taken now to mitigate the climate crisis. In addition, the farm sector faces enormous threats from the growing extreme weather events of both droughts and floods. The challenges of global warming and therefore climate change, need to be addressed on a war footing. Given the vulnerabilities, it is also critical to strengthen climate resilience and adaptability of the agri-food sector. Such massive interventions will no doubt call for global climate adaptation funds to effectively tackle the challenges of global warming on the agri sector. While such 'green bonds' have contributed to strengthening sectors like renewable energy and mobility, the flow of such funds to the agri sector has been relatively sparse. It is imperative to develop a suitable framework for the agri-sector by defining specific metrics and climate resilient outcomes so that agile green funds are facilitated in extending larger support to implement climate solutions in agriculture.

Building on the expertise and success of the ITC e-Choupal in empowering over 4 million farmers, ITC recently launched the Climate Smart Agriculture initiative which has been extended to over 8000 villages so far reaching out to nearly 2,00,000 farmers. An intensified pilot at scale to create Climate Smart Villages have already seen yields increasing in select crops upto 15%; net returns upto 37%, and GHG emissions reducing by 45%. ITC's water stewardship programme, aligned to Government initiatives like More Crop per Drop, helps increase availability of water for agriculture through a combination of demand-side and supply-side interventions. The Company's demand-side water management interventions have led to reduction of water consumption by as much as 20 per cent to 45 per cent. ITC's integrated water stewardship programme today covers 1.2 million acres with over 44 PPP partnerships.

It is critical to harness the power of new-age digital technologies to give new impetus to the sector

Second, it is critical to harness the power of new-age digital technologies to give new impetus to the sector. A 'phygital' delivery system that combines physical initiatives like field demonstrations, input micro systems, along with digital interventions like crop advisory can bring in efficiencies and provide customized solutions at scale. ITC has launched the Choupal 4.0 as a crop-agnostic 'phygital' integrated solution framework that synergistically integrates technologies like remote-sensing, precision-farming, quality-assaying and e-marketplace to provide customized solutions to each farmer. To cite an example, the e-Choupal 4.0 platform was adopted for an Integrated pilot programme on chilli value chain development in partnership with the Department of Horticulture, Government of Andhra Pradesh. The programme resulted in an increase in farm productivity by 13 per cent and improvement in quality leading to an additional realisation for the farmer to the extent of ₹ 23,000 per acre or 32% in aggregate.

Finally, there is a need to forge a larger collaborative effort to build the competitiveness of agri-value chains and leverage the opportunity for agri-exports. The HLEG report, underscoring the potential to double agri-exports, had highlighted the need to build competitiveness of lighthouse value chains in

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areas such as shrimps, spices, fruits & vegetables and rice that have immense export opportunities as well as in vegetable oils and wood that have a significant headroom for growth through import substitution, whilst strengthening the domestic sector. This calls for a transformational shift of the agri-eco-system from the conventional production-centric supply chains to demand-responsive value chains anchored by market players. To leverage these opportunities, farmers will also require access to new knowledge in crop management and efficient linkages to input and output markets with each cluster being equipped with a micro-ecosystem. To enable such an orbit shift in agricultural transformation, there is a need to forge multi-stakeholder partnerships amongst the different players in the eco-system, be it farmers, input providers, research institutions, value-chain partners, brand owners, financial institutions and the like.

The visionary reforms announced by the Government in recent times provide the building blocks that will enable foundational support to agri-value chain partners, FPO's and market participants to build the competitiveness of the agri-sector. It will be important to create institutional mechanisms to align & incentivise different stakeholders as also converge resources to accelerate this transformation to demand-responsive value chains that will multiply farm incomes. I am deeply convinced that the development of robust agri and wood-based value chains, given their economic multipliers, has an enormous potential to contribute to the national objective of sustainable and inclusive growth, in the true spirit of 'Atmanirbhar Bharat'. Indeed, with the private sector's engaging and proactive role, a new future for agriculture can be crafted that is a win-win for all its stakeholders and the nation.

Sanjiv Puri, an alumnus of the Indian Institute of Technology, Kanpur, and Wharton School of Business, is the Chairman and Managing Director of ITC Limited, one of India's foremost private sector enterprises with a portfolio of diversified businesses spanning FMCG, Hotels, Paperboards & Packaging, Agri-Business and Information Technology. He is also the Chairman of ITC Infotech India Limited and its wholly owned subsidiaries in the UK and USA as well as Chairman of Surya Nepal Private Limited. He has served as the Chairman of the Expert Group constituted by the Fifteenth Finance Commission of the Government of India for recommending performance based incentives for States to promote agri-exports and as a Member of the technology discussion group 'Farm to Table - driving India's agriculture sector digitally' constituted by the NITI Aayog.

Metals and Mining

METALS & MINING FUELLING ECONOMY AS PRIMARY INPUT

In January 2021, the pandemic seemed a thing of the past atleast for the Indian metals and mining sector. The sector had seen a steady bounce back and was witnessing a dream run as the new year began. It was actually riding a wave of spiking demand, mostly pent-up, coinciding with the global economy getting back to rails. Thanks to this rise in demand, some of the key segments including steel experienced a rise in prices. The rise in prices can also be attributed to targeted stimulus in China and re-stocking demand in domestic markets. In the wake of this rising demand from end-users and fresh investments by the mining companies, the mining sector in India was poised for a robust growth in FY21. Mind you that the mining sector fuels the economic wheels as a primary input and is a key contributor to power, manufacturing, construction and real estate sectors.

Steel prices had already touched an all-time high in the domestic market, by January, 2021, and were hovering around ₹ 57,250 per tonne. The production of steel was also robust, which, in turn, led to a rise in iron ore prices. Iron ore prices went up by ₹ 1,270 per tonne over the quarter. During this time, there was a shortage of iron ore in Orissa. That, in fact, worked towards strengthening the trend. It is pertinent to mention here that latest round of auction of 19 mines in Orissa had resulted in lesser output, compared to pre-auction levels.

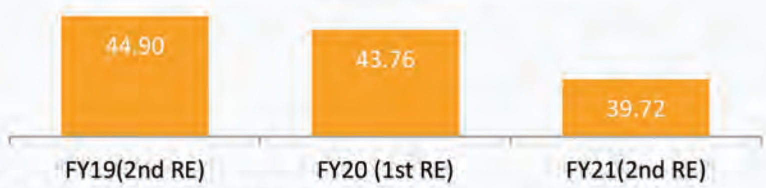
The good thing is that the Centre has already recognised mining as a key sector for employment, revenue generation and value addition during these challenging times.

Consider these facts. India is the third largest producer of coal. The overall production of coal in India stood at 729.10 million tonne (MT) in FY20 and reached 361.46 MT in FY21 as of November 2020. When it comes to iron ore production, India ranks fourth globally with production reaching 206.45 MT in FY 20. Incidentally, India has nearly 8 per cent of the world's iron ore deposits. Then with a production at 111.2 MT, India became the world's second largest crude steel producer in 2019. Production of aluminium, on its parts, stood at 3.65 MT in FY20. And exports of aluminium from India reached $18.24 million in FY20 till January 2020.

METAL AND MINERAL PRODUCTION

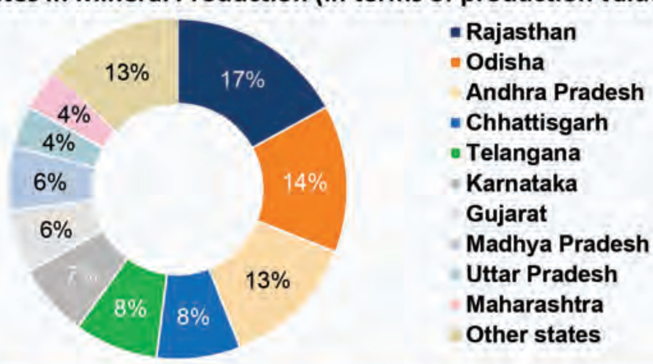
Trend Point: GVA from mining and quarrying stood at US$ 39.72 billion in FY21, as per the second revised estimates.

GVA from mining and quarrying (US$ billion)



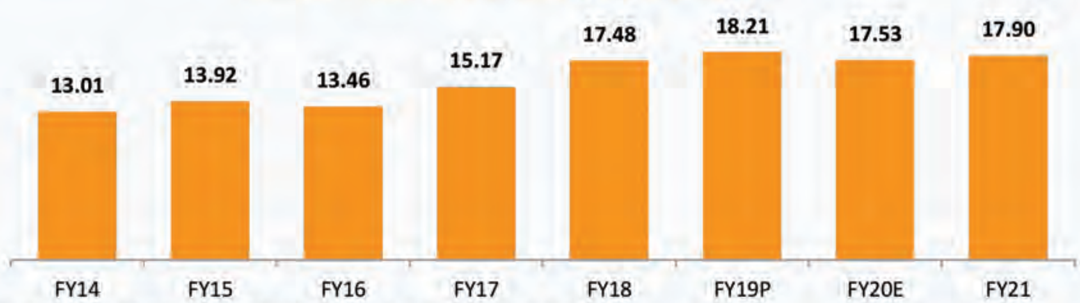
Note: *RE- Second Revised Estimate ; GVA - Gross Value Added*

Share of States In Mineral Production (in terms of production value, FY21E)



Note: E- Estimate

Mineral Production in India (in US$ billion)^



Note: ^Excluding atomic and fuel minerals, P- Provisional, E- Estimate

Source :IBEF

Therefore, it is important to initiate the right set of measures and utilise the recovery from COVID-19 to step up economic activity and build a resilient mining sector that is ready for future challenges. Remember, rise in infrastructure development and automotive production would drive growth. Power and cement industries would also help growth for the sector. Demand for iron and steel is expected to follow the same trend, given the strong growth expectations for the residential and commercial building industry. Sector analysts think that there is a significant scope for new mining capacities in iron ore, bauxite and coal. There are considerable opportunities for future discoveries of sub-surface deposits as well. Large infrastructure projects continue to offer lucrative business opportunities for steel, zinc, and aluminium producers. Iron and steel form a core component for the real estate sector.

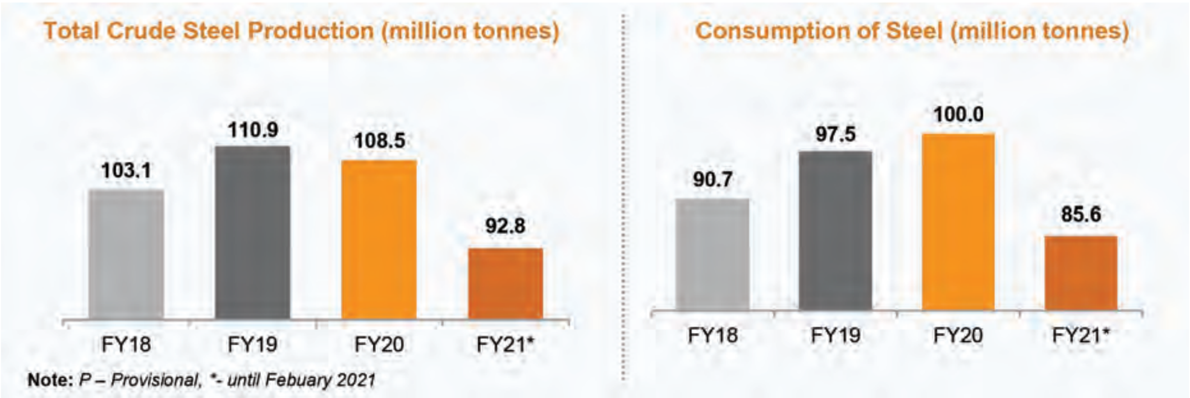
T V Narendran

CEO and MD
Tata Steel

Steel Industry Will Play Pivotal Role in India's Growth Story

The Indian economy is likely to grow to $6tn[1] by 2030, from about $2.9tn in 2019, making it world's third[2] largest economy. While the growth may remain below potential in the near term as the economy recovers from the pandemic, ongoing reform measures has the potential to boost the growth trajectory. Forward looking policies like the Goods and Services Tax, divestments and initiatives like 'Atmanirbhar Bharat' will play a major role in this growth story.The investment and consumption led growth has favourable implications for opportunities in different sectors of the economy, particularly infrastructure, financial services, utilities and industrials.

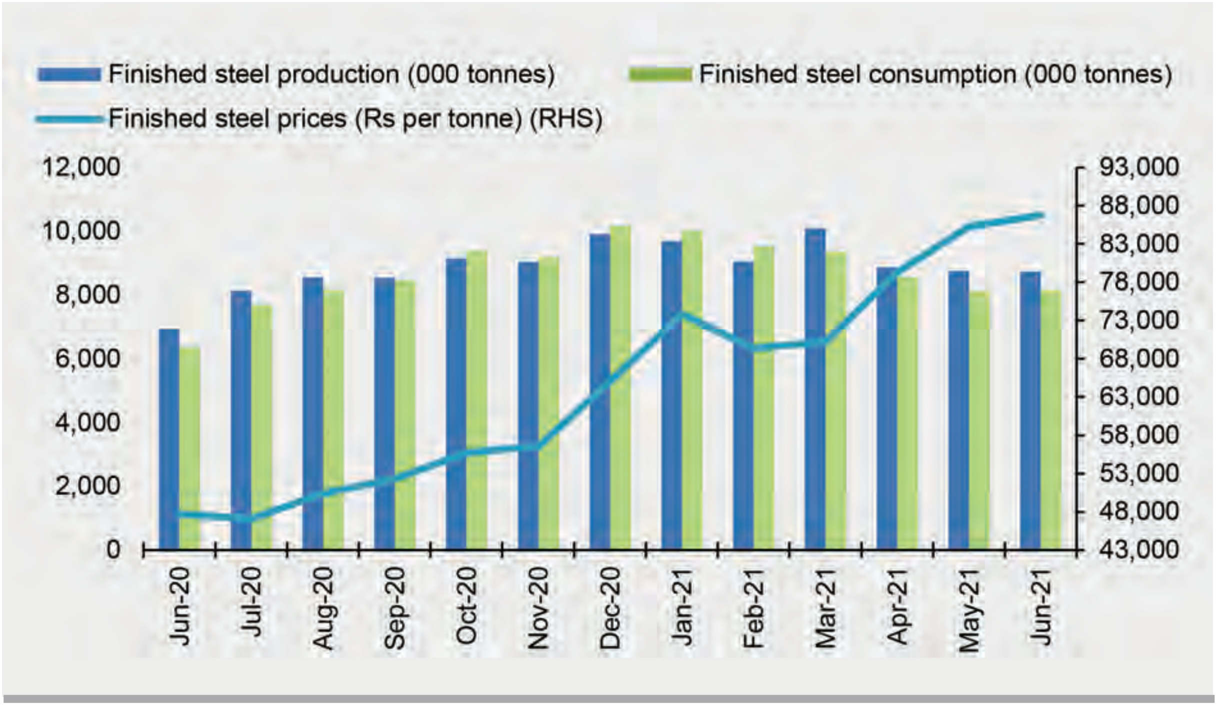
PRODUCTION AND CONSUMPTION OF STEEL



Source : IBEF

The steel industry will play a pivotal role in this growth journey. With large raw material reserves, strong base of technically-skilled manpower and one of the fastest growing markets in the world, India has definite structural advantages for a successful steel industry. The National Steel Policy 2017 seeks to create a globally competitive steel industry in India with 300 million tonnes steel-making capacity and 158 kg per capita steel consumption by 2030-31(implying a CAGR of 8.5 per cent in finished steel demand).The growth in demand will come from both traditional and emerging consuming sectors

STEEL PRODUCTION AND PRICES



Source : CMIE BWR Research

focusing on changing needs of customers. Growing urbanisation will see demand for steel focused on modularisation, amenable to fast pace of construction and better aesthetics. Electric mobility and e-commerce-related infrastructure, renewable energy capacity and digital infrastructure like data centres will see rapid growth. Rural is another sector where steel demand is expected to see significant growth in the coming decade as access becomes easier with better infrastructure and digital playing a prominent role in demand aggregation. On the supply side, the industry is witnessing consolidation which presents an opportunity for deploying technology and efficiencies at scale. Going forward, the Indian steel industry needs to focus on four key strategic enablers to ensure long term sustenance and success:

Taking decisive steps towards a lower carbon footprint

If left unbridled, the proportion of carbon emission from the steel sector globally will increase from ~5 per cent to 33 per cent by 2050.Urgent steps are required to achieve a significant reduction in carbon intensity over the next decade and to achieve carbon neutrality in the long term. Circular economy models which reduce the amount of raw materials consumed, reuse, refurbishing and recycling needs to be adopted. Collaboration with supply chain partners is required to ensure that the entire steel ecosystem becomes sustainable. Investments in technology development and adoption in areas such as hydrogen-based steel making and carbon capture and usage will be required.

Deepening the culture of innovation and technological advancement to remain the material of choice across segments

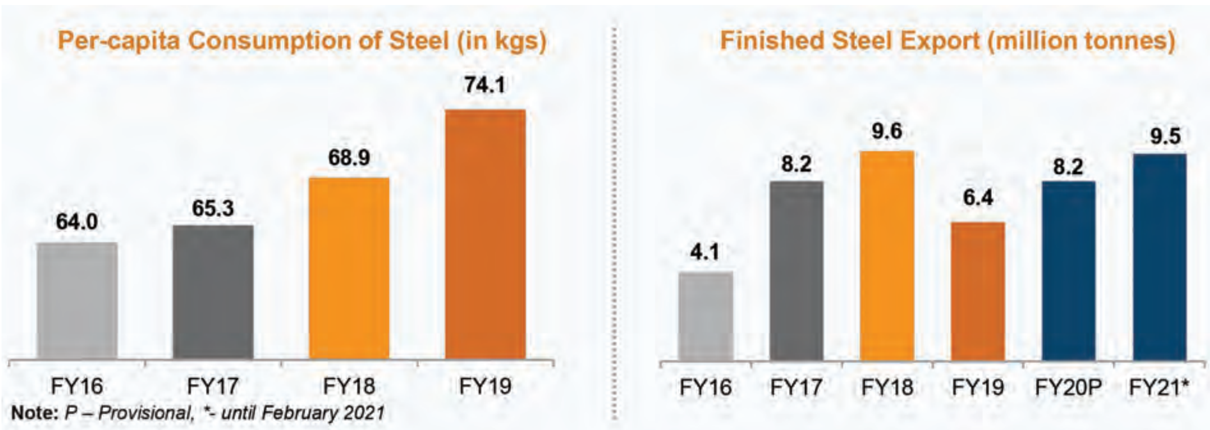
Technology and knowledge-led innovation will be key to value creation for the rapidly evolving customer segments.There is a need to focus on product development for areas like mobility and

construction which are evolving rapidly as also new application areas.Technology also needs to aid conservation of non-renewable natural resources like water and raw materials.At the same time, the steel industry needs to focus on a robust ecosystem to facilitate consistent innovation. This includes developing applications and markets for advanced materials, theme-based public funding of R&D, alliances with academia and technological institutions.

Leveraging digital to improve efficiency as well as transform the way we operate

Using data to enhance efficiency is a key value driver for all industries and it is critical for the steel industry to leverage the power of Industry 4.0. Data Science (including Artificial Intelligence) and IOT are the two practices that are driving Digital-led transformation. Connectivity, Cloud Computing, Sensorization and Cyber-security continue to be the foundation supporting the transformation. Once this is in place, the data and insights platforms can help transform the industry to a higher level of performance.

STEEL : PER CAPITA CONSUMPTION



Source : IBEF

Focus on talent and adapt to the changing work paradigm

The work paradigm and the need of the new generation of workers are changing significantly. Changing demographics and expectations of millennials will define the work paradigm of the future. The steel industry needs to rethink talent policies while creating a purpose which the new generation can relate to and find meaning in. Specific initiatives are required to improve gender diversity on the shop floor. It is also important to understand the nature of work that will continue to be done by humans going forward, and tasks (repetitive, codifiable) that will be taken over by machines.

This will lead to a completely different requirement of skill sets, and re-skilling of workforce will emerge as a strategic challenge.

Overall, I see a very exciting decade ahead of us and the Indian steel industry has a great opportunity to shape the development of our nation as well as emerge as the most modern, cost competitive and forward looking steel industry globally.

With a degree in Mechanical engineering from Regional Engineering College, Tiruchirappalli (now known as National Institute of Technology, Tiruchirappalli) and an MBA from Indian Institute of Management Calcutta, T V Narendran, is the global CEO and Managing Director of Tata Steel, one of the largest steel producers in the world. He joined Tata Steel in 1988 straight after his MBA from IIM Calcutta. He was actively involved in the Tata Steel's first overseas acquisition, NatSteel, and was seconded there as an Executive Vice President in 2005. He ran operations in NatSteel thereafter as the Deputy President (Operations) and took over as the President & CEO on January 1, 2008. He played a key role in the integration of NatSteel and Tata Steel.

Banking and Finance

RESTORATION OF CONSUMER CONFIDENCE WILL BE KEY IN FUTURE

Keeping the inflation under manageable limits seems to be the biggest challenge for the central banker at the moment. India, as a country, will certainly perform well if the RBI mission secures what the market expects it to achieve. A number of significant measures and initiatives have already been taken ever since the announcement of the latest credit policy. For instance, the secondary market g-sec acquisition operations have been quite authoritative. A lot is expected in terms of steady liquidity management strategies and understandably so. If you think you will introduce some belt tightening measures and those will be enough, you are mistaken. These measures alone cannot deliver what the investor community is seeking right now. Restoration of consumer confidence by all means will be the key in the days to come.

The liquidity availed by various banks under the relevant plan will be purposefully deployed and the banks know that very well. What is critically important at this juncture is the need to ensure adequate liquidity in the system. Mind you that the banks are meant to be lending to quality borrowers, and that's exactly what the lending sector is expected to do in the coming months and years. But one has to keep in mind that the extent to which loans and advances are actually being given to select sectors will be monitored closely by all stakeholders.

There are two strong elements, which are expected to keep the average fixed-income investor engaged in the days to come. The first being the subtle but unmistakable changes that are witnessed on the interest rates front, and the second, the apex bank's indomitable stance as expressed in its latest credit policy. For the record, RBI has advised the market to seek positive signals emanating from the economic front (read: data points that underscore benign developments). Interestingly, one can see the trend against a backdrop marked by a definite recovery in business and industry – but at the same time, one can see the trend as one that may well be sullied by a fresh bout of Covid in the coming months.If the latest report by Fitch Ratings is to be believed, the second wave of Covid-19 infections has come up with increased risks for India's fragile economic recovery and its banks. Fitch has already aired its apprehensions about a moderately worse environment for the Indian banking sector in 2021. The rating agency has sounded a word of caution that headwinds would intensify, should rising infections and follow-up measures to contain the virus further affect business and economic activity. The latest Fitch report suggested that the operating environment for banks will most likely remain challenging against this backdrop. What is alarming is that the second wave of pandemic could cause a great damage to the sluggish recovery in consumer and corporate confidence. It can further suppress banks' prospects for new business. With banks' financial results yet to fully factor in the first wave's impact and the stringent 2020 lockdown (thanks to the forbearances in place), asset quality concerns cannot be ruled out either.

Fitch Ratings feels India's private sector banks are more exposed to retail but they also have much better earnings capacity, contingency reserves, and core capitalisation to withstand stress on their portfolios. The public sector banks, on their parts, remain more vulnerable, thanks to their prevailing weak asset quality. Greater participation in relief measures are not commensurate with their limited loss-absorption buffers either.

Chandra Shekhar Ghosh

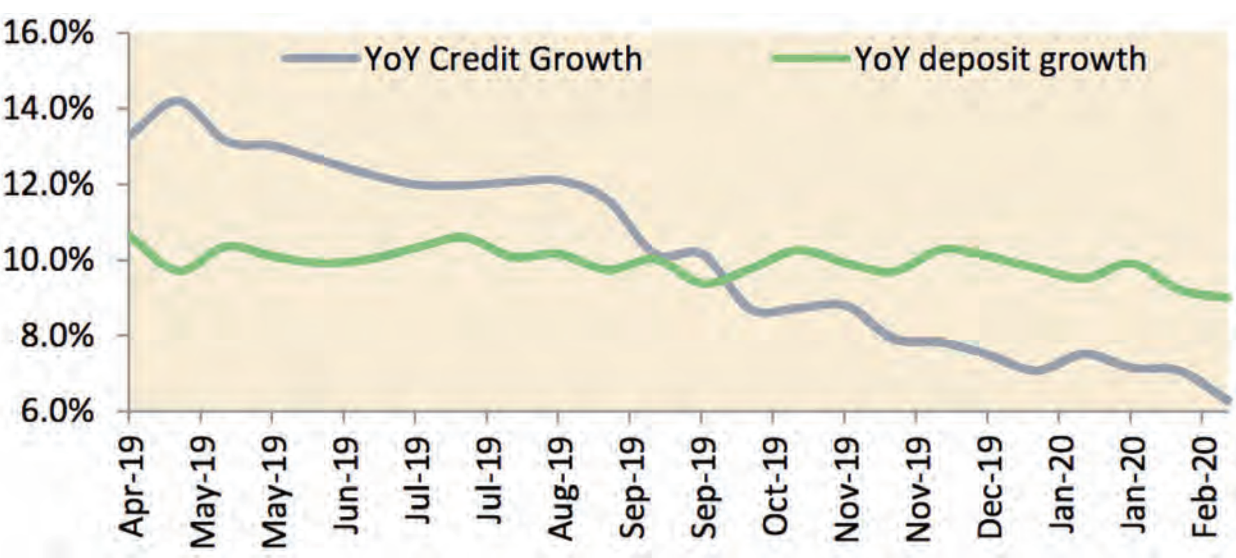
Managing Director and Chief Executive Officer
Bandhan Bank

Finance – A key catalyst in socio-economic development

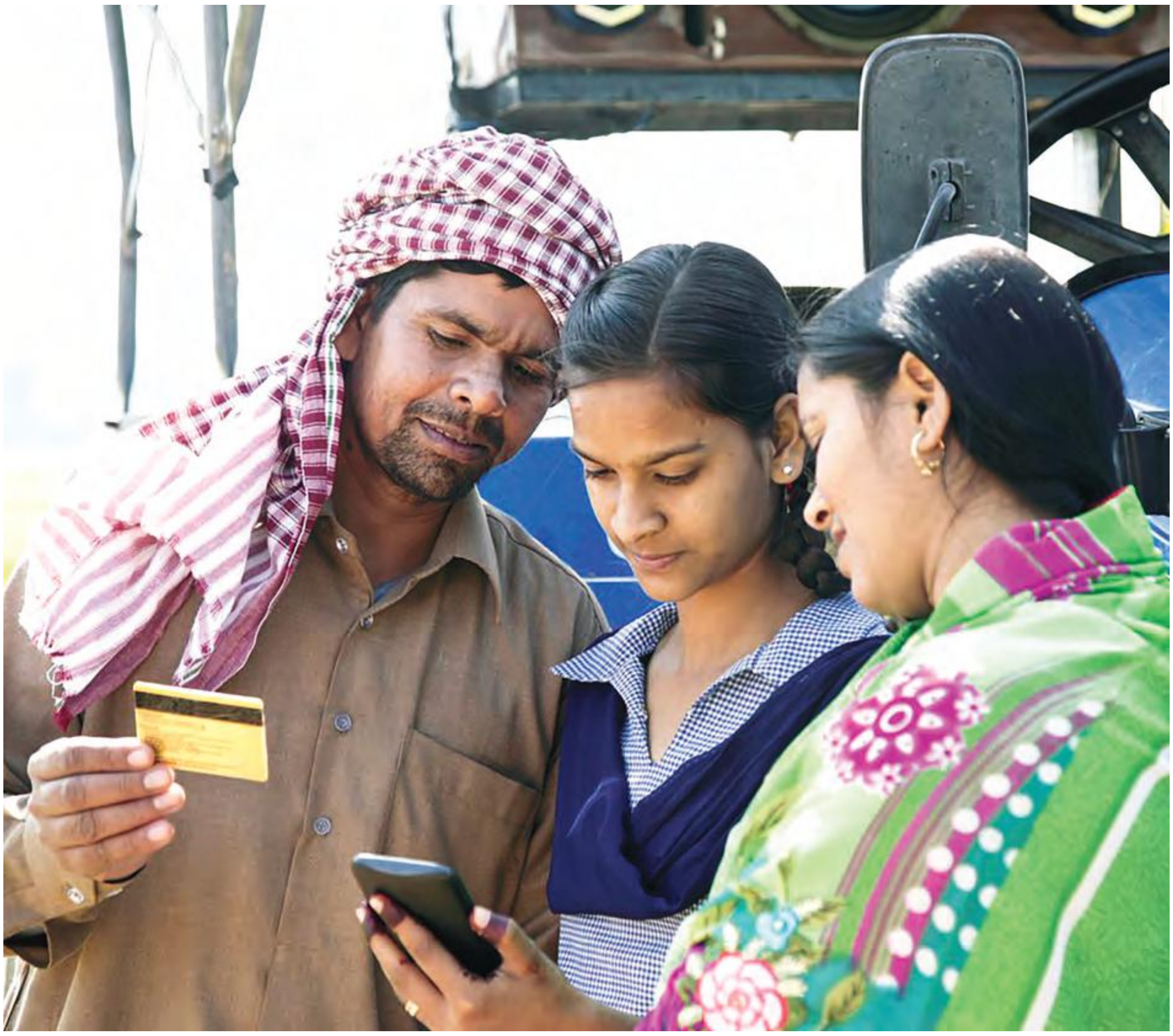
Credit availability is critical to ensure overall development of the nation. According to the World Bank, domestic credit to private sector as a percentage of GDP in China stood at over 165 per cent at the end of 2019, around 152 per cent in South Korea, and around 138 per cent even in a country like Vietnam. In comparison, India's domestic credit to private sector as a percentage of the country's GDP stands at a low 50 per cent. Clearly, there is much scope for us to drive credit towards fuelling greater economic growth.

Moreover, it isn't just enough to channel a greater flow of institutional credit into the economy. Such credit also needs to reach those that need and deserve it most. According to the World Bank's Global Findex Report, published in 2017, India has the second largest population of unbanked people in the

YOY CREDIT & DEPOSIT GROWTH OF BANKING SECTOR



Source : ICRA report. This shows total non-food credit growth

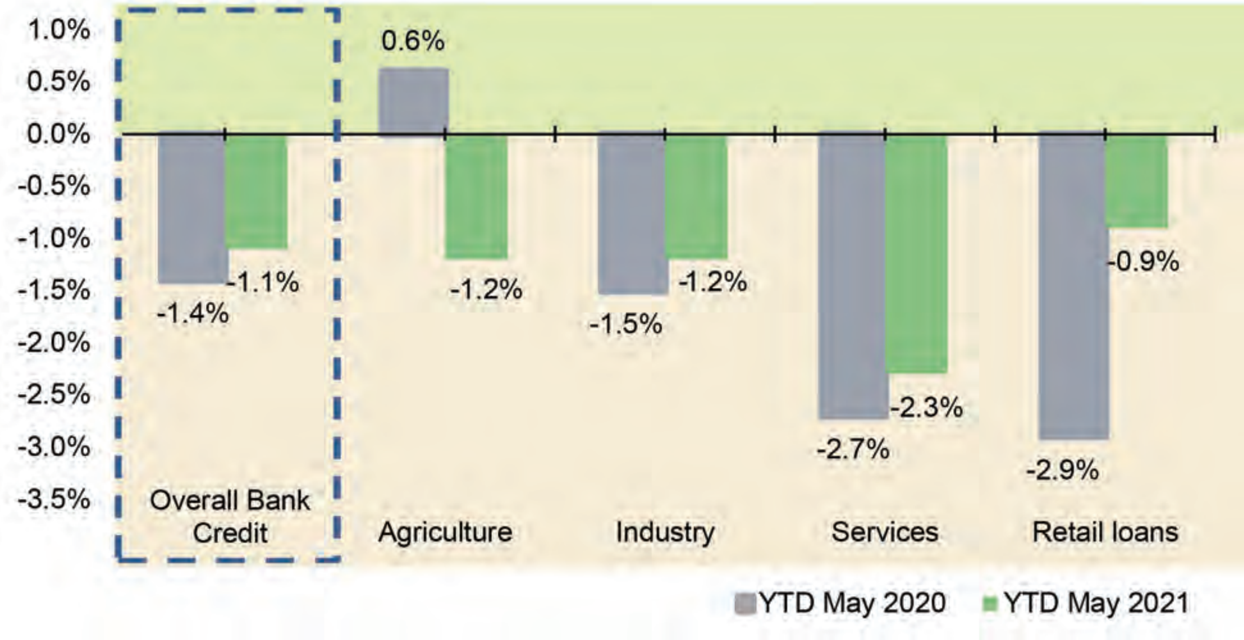


world. While policy interventions have been able to drive financial inclusion and have made significant impact, there still is a long way to go. Though two-thirds of India's population lives in villages, only 11 per cent of the country's bank branches can be found in rural areas. Therefore, there is a pressing need to deepen the penetration of banking services in these regions.

Economic growth and human development must work in unison for the overall development of a nation and its people. In this context, the overarching mission of India's financial system needs to be empowering the economically weak, and move them to earning a sustainable livelihood and improve their quality of life. Though India is the fifth largest economy in the world – larger than nations such as UK and France – we rank 130th on UNDP's Human Development Index (HDI), alongside countries like Namibia and Tajikistan.

This makes it imperative for India to focus on areas such as healthcare, education and livelihood creation for its people, especially post the debilitating impact of the COVID-19 pandemic and related disruptions. BFSI will have to play a critical role here. Innovative financial products and services targeting growth multipliers such as small loans for income-generating purposes, affordable housing and loans for MSMEs need to be promoted. Imagine the economic power that can be unleashed if India's 63 million micro, small and medium enterprises (MSMEs) are empowered with access to credit and banking services that help them become globally competitive and contribute to the country's ambition of becoming self-reliant.

BANKING SECTORAL CREDIT GROWTH



Source : RBI BWR Research

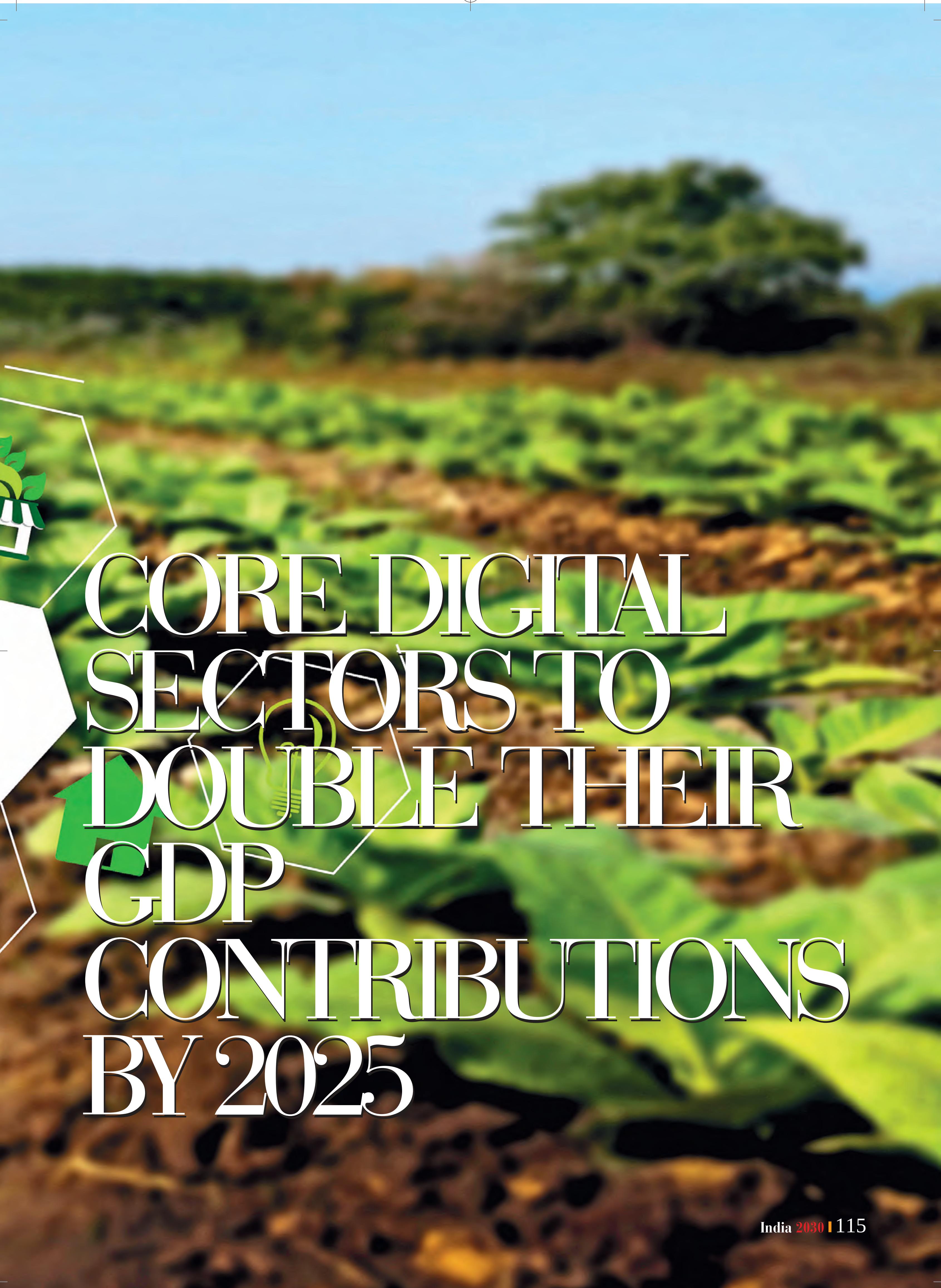
Digital banking will have to play a lead role in the post-pandemic world in order to ensure last mile delivery of financial services. Already, technologies such as UPI-based micro payments and digital KYC for availing financial services have become popular. However, in the absence of consistent data network coverage across the country, especially in remote areas, hybrid models need to be developed. For instance, financial transactions facilitated via regular cellular network in absence of data connectivity.

While the pandemic may have temporarily paused India's growth momentum, it has brought to fore the inherent resilience of the economy, and the future looks promising. India has all the right ingredients to continue its historic growth story – strong demography and human capital, thriving democratic setup, robust financial system, and long term policy commitment. We are living in exciting times and the years to come will only be more exhilarating, moving the USD 5 trillion economy from a dream to reality.

(Views are personal)

Chandra Sekhar Ghosh, who holds an MSc in Statistics and attended the HBS-ACCION programme on Strategic Leadership at Harvard Business School, is the Founder-Managing Director & Chief Executive Officer of BANDHAN Bank. He has been one of foremost proponents of microfinance in India with over 30 years of experience in that space. He founded Bandhan in 2001 as a not-for-profit enterprise that stood for financial inclusion and women empowerment through sustainable livelihood creation. He was on the forefront of its transformation into an NBFC-MFI and finally a universal bank in August 2015. He was elected as 'Senior Ashoka Fellow' in 2007 by Ashoka Foundation (social entrepreneurship award). A former President of Bengal Chamber of Commerce & Industry and former Chairman of CII, Eastern Region, Ghosh is also a member of Managing Committee of Indian Banks' Association (IBA).

Technology and Digitisation



CORE DIGITAL SECTORS TO DOUBLE THEIR GDP CONTRIBUTIONS BY 2025

The number of internet users in India is estimated to be over half a billion and the country is one of the largest and fastest growing markets for digital consumers. Ironically however, technology adoption is still uneven among businesses. Technology seems well set to transform almost all sectors of the Indian economy when digital capabilities improve and connectivity becomes omnipresent. When that happens, it will create significant economic value (in fact, the core digital sectors can actually double their GDP contribution by 2025) and will also change the nature of work for millions of Indians. In fact, the pandemic and the new geopolitical scenario have fostered the adoption and innovative implementation of all the vital technologies quite remarkably. It's only a matter of degree, and all segments of the economy is getting digitised some way or the other. This is necessary to remain relevant. India, therefore, is experiencing unprecedented momentum, when it comes to adoption of remote collaboration tools and digital access to services across industries.

In terms of the pace of digitisation, India is now the second-fastest economy and is increasingly recognized as a global force to reckon with, in this regard. Researchers at Harvard University minced no word in admitting and recognising that India is leapfrogging into the 4th industrial revolution. Quite significantly, for the Modi 2.0 government, Digital India is the government's flagship programme. This programme promises to transform India into a digitally empowered society and knowledge economy and also to bridge the digital divide and bring technology to even the most far-flung parts of the country. The inclusion of major investments in AI, quantum technology and machine learning – the backbone of digital transformation –in the 2020 Union Budget, drives home the point that the government is keen on further boosting the country's transition into digital economy. The right focus on creating a new regulatory regime, coupled with significant investments in science, technology and entrepreneurship, has enabled India to develop cutting-edge technology and a rapidly growing digital market.

Introduction of Aadhaar Card, a biometric digital identity program spanning 1.2 billion citizens, is another case in point of the State being a strong catalyst for India's rapid digitization. Aadhaar Card promises to create enormous opportunities for businesses to utilize when developing new services for banking, lending and financial inclusion. And last but not the least, the introduction of GST has also brought more than 10 million businesses online.

Suresh Sethi

Chief Managing Director
NSDL

Technology and Digitisation: The Way Forward

Since the Covid 19 outbreak in the beginning of the year 2020, the world has witnessed a rapid transformation on various fronts related to adoption of digitisation and consumer/ institutional behaviour. Covid 19 will be remembered as the worst nightmare of the century. In the initial days/ weeks, not only SME entities, but even large enterprises who were advanced users of technology, struggled. But very quickly, like a catalyst, it triggered a chain reaction across businesses, big and small, to mature their usage of digital technology and facilitated survival by carving a path to new and evolved digital centric sustainable models. It is evident that the past 18 months have accelerated adoption of digital technology regardless of size, sector and segment of business. Likewise, consumers have demonstrated an amazing agility in adapting to digital mediums.

Smartphones and mobile internet are at the forefront of this digital revolution. In line with consumption trends, businesses are adopting a Mobile First strategy to expand. Smart phones have packed everything from entertainment to high end commerce, education to healthcare, in the pocket of the consumer. This has become a way of life for a significant part of the population.Covid 19 has also propelled the adoption of digital technology as an interface for provision of citizen centric services. Digilocker, Umang, mParivahan, mAadhaar, Aarogya Setu and Co-Win are significant examples wherein the Government is leveraging smartphones and mobile Internet to provide easy access to the citizens. Equally monumental is the Government's role in creating a public digital infrastructure, built on open source platforms and open standards. This has led to creation of interoperable & inclusive eco systems for connecting and delivering a host of services across sectors. These services straddle a wide spectrum ranging from financial inclusion, to universal healthcare, education, skilling and commerce. Prime examples include India Stack built on the foundation of Aadhaar; UPI – one of the fastest growing Payments system in the world bringing together the best of banking and big tech; Open Credit Enablement Network (OCEN) – democratising credit; the National Health Stack framework laying the rails for provision of universal healthcare through digitisation.A favourable and progressive regulatory & policy framework is an equally critical factor to ensure successful implementation. With digitisation comes data – therefore beside other regulatory provisions being strengthened, review and enhancement of IT Act as well as efforts for enacting Data Privacy Bill are important milestones in this journey.

Online transactions have resulted in proliferation of personal and financial data on network connected systems. Technology is hackable and encryption will only be able to slow down such attempts to a certain extent. It is important to create monitoring rules to weed out anomalies in regular data traffic and Machine Learning technologies would be critical to enable the same in the form of Security Operations Centres equipped with NBAD (Network Behaviour Anomaly Detection) and UBA (User Behaviour Anomaly). Further, Artificial Intelligence technology facilitates quick filtering, decision making and response action/ remediation in aiding the Security Orchestration, Automation and Response (SOAR) solutions. In parallel, blockchain based solutions are gaining attention due to their inherent design aimed at maintaining integrity of transactions. With work-from-home becoming the new normal, various surveys have acknowledged, ransomware and malware as the most dreaded threats. As a result, while on one hand industry players are replacing older generation technology such as anti-virus with next gen EDR and XDR; on the another hand, Government is supporting with programs such as Cyber Surakshit Bharat, Cyber Swachhta Kendra, Indian Cyber Crime Coordination Centre and National Critical Information Infrastructure Protection Centre, thereby significantly enhancing the overall National Cyber Security Posture.

While technology and digitisation have become a way of life, helping in the survival and sustainability of various industries, we need to be acutely conscious of the fact that this does not create a digital divide between the haves and have nots and ensure that innovation fosters inclusivity. Going beyond sustainability, we need to focus on impact and ensure that Environment, Society & Governance related considerations are embedded into all related developments.

Technology can play a strong role in monitoring and measuring impact and impact weighted accounting principles need to be mainstreamed. Hundreds of parameters and thousands of data points need to be captured and carefully processed to provide fairly accurate impact scores. Technology solutions are evolving to make this happen in a seamless manner. Technology has been and will always be seen as foundation stone and building block for sustainability.

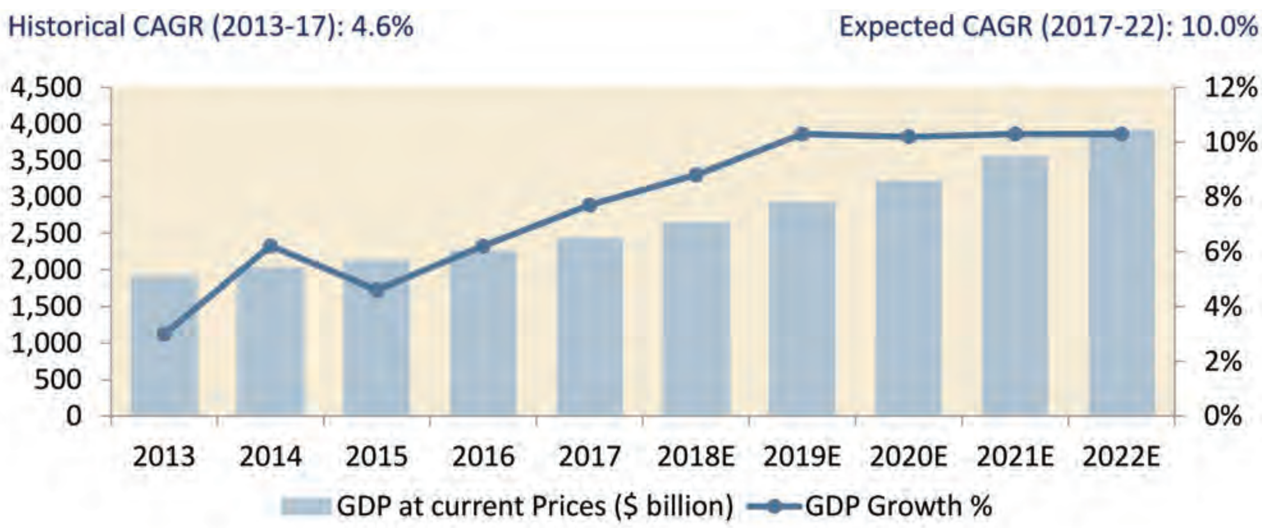
Suresh Sethi is currently the Managing Director & CEO of NSDL e-Governance Infrastructure Ltd. He has over three decades of diversified global experience in the financial services industry. In his previous role as the Founder CEO & MD of India Post Payments Bank, he is credited with creating the largest inter-operable banking infrastructure for public good at scale. With over 190,000 Postal employees providing Doorstep Banking Services to customers of ANY BANK, India Post Payments Bank has scaled up the rural banking network by almost 2.5 times across India. Prior to India Post Payments Bank, he had worked with some of the world's and India's leading financial services companies such as Citigroup, YES Bank and Vodafone M-Pesa across India, Kenya, UK, Argentina and the US. He has extensively worked in the financial inclusion space leveraging Fintech and digital-led innovation to make a difference.

CONVERGENCE ACROSS HEALTH PROGRAMMES: NEED OF THE HOUR

The healthcare systems globally have been shaken, following the break out of Covid 19. And India is no exception. Amidst all the adverse impacts, one good thing has been that in response to the pandemic, the private and the State-run healthcare systems started working in tandem. Quite significantly, in challenging times, Indian private healthcare players came forward and extended helping hands to their public sector counterparts by way of offering services like testing, isolation beds for treatment, providing medical staff and equipment at government COVID hospitals and home healthcare setups.

There is no doubt that India's private healthcare sector has contributed significantly and it now accounts for about 60 per cent of inpatient care. However, one has to keep in mind that the private sector largely has its presence in tier I and II cities. And there have been and are disparities and the challenges to equitable, accessible and quality healthcare across other geographies.

GDP @ CURRENT PRICES & GDP GROWTH (2013-2022)

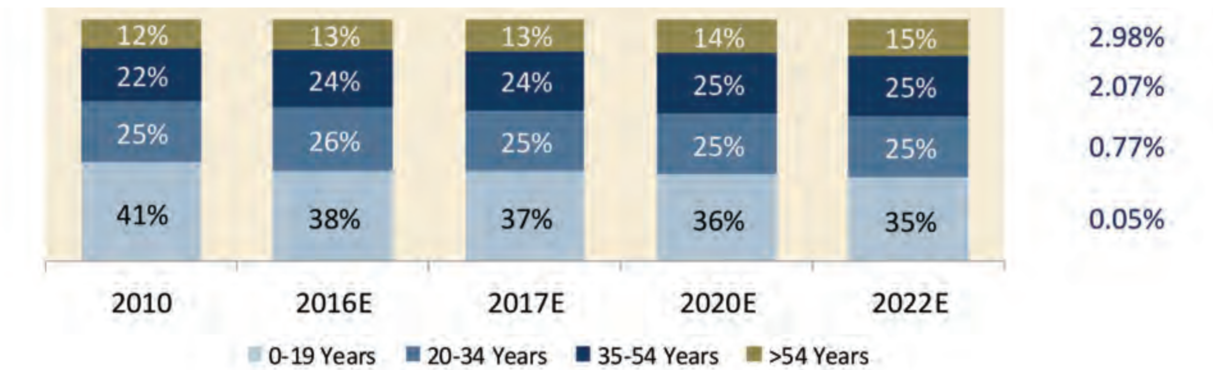


Source: International Monetary Fund (IMF) & World Bank Data

The public healthcare system, on its parts, focuses on delivering primary healthcare through community-level health programmes. These community level health initiatives, by and large, focuses on reducing mortality and morbidity, caused by various communicable and non-communicable diseases. When it comes to healthcare infrastructure at this level, there are many tiers and layers. Basic health services are provided through sub-centers and primary health centers, while secondary and tertiary care is delivered at better equipped establishments like community health centers, district hospitals and medical colleges that are mostly located at district headquarters. In order to effectively manage the outbreak of the pandemic, the Indian government also leveraged technology and developed various applications both at the central and state-levels. The Aarogya Setu mobile app is a case in point. It helped in syndromic mapping, contact tracing and self-assessment and it was widely used across the length and breadth of the country. Various technology platforms were extensively used to supplement the response management, which included delivery of essential items in containment zones, tele-consultations with patients, bed management and real-time monitoring and review by the authorities.

Now coming to possibly the most crucial aspect, which is funding of these healthcare initiatives, one must take a look at how the government has increased its healthcare allocations. The Centre has proposed a

CLASSIFICATION OF POPULATION (AGE WISE)



Source : UN Population Division, World Population Prospects, Frost & Sullivan Analysis

capital outlay of ₹ 2,23,846 crore for health and well-being, an increase of 137 per cent from the previous year, with ₹ 35,000 crore earmarked for COVID-19 vaccine in the coming fiscal. Ministry of Health and Family Welfare has been allocated ₹ 71,269 crore in FY2021-22, an increase of 10 per cent over previous year (₹ 65,012 crore).

This includes the budgetary allocations to National Health Mission (₹ 36,577 crore), Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (₹ 6,400 crore), Centrally Sponsored Schemes (₹ 22,044 crore) and Establishment Expenditure (₹ 6,245 crore). Department of Health Research has been allocated ₹ 2,663 crore, an increase of 27 per cent over previous year (₹ 2,100 crore). Ministry of AYUSH

> The Aarogya Setu mobile app helped in syndromic mapping, contact tracing and self-assessment and it was widely used across the length and breadth of the country

has been allocated ₹ 2,970 crore, an increase of 40 per cent over previous year (₹ 2,122 crore). Allocation for Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) under National Health Mission stands at ₹ 7,000 crore in FY2021-22, an increase of 16 per cent over the allocation of ₹ 6,020 crore last year. A fresh allocation of ₹ 30 crore has been made for National Digital Health Mission (NDHM) this year under the Centrally Sponsored Schemes.

The good thing is that primary healthcare, one of the most critical elements of healthcare provision in an efficient and equitable system, is now getting strengthened. Even the previously neglected urban healthcare component is now receiving attention and resources. As part of the lately announced PM Atma Nirbhar Swasth Bharat Yojan, as much as ₹ 64,180 crore will be invested over six years to improve primary, secondary and tertiary healthcare.

Success of all such ambitious initiatives will depend on their effective implementation. The government must focus on the quality of implementation of the new programmes and schemes, while fostering convergence across health programmes.

Dr Sangita Reddy

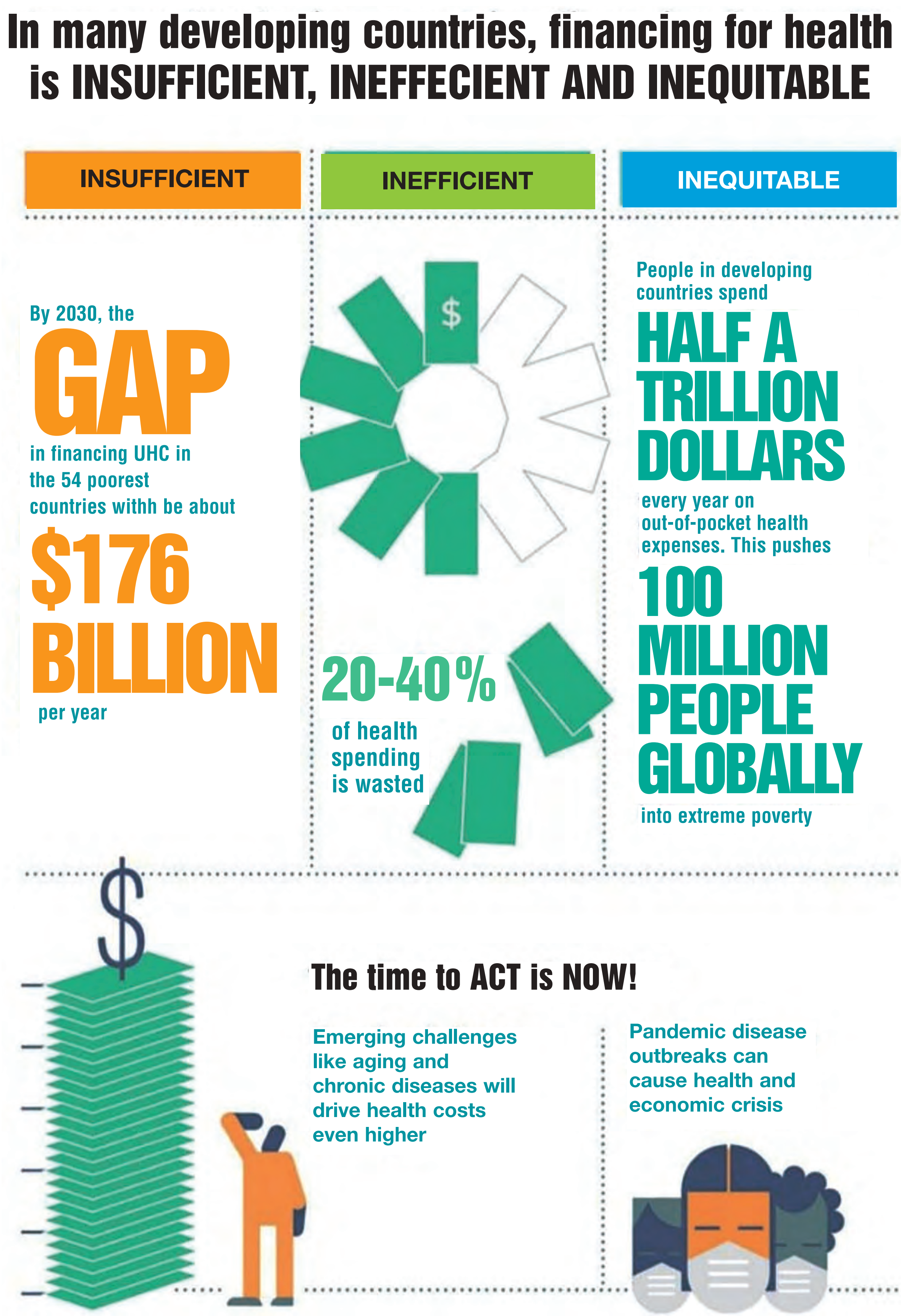
Joint Managing Director
Apollo Hospitals

Healthcare in a post-pandemic world

The COVID-19 pandemic has been a health crisis unlike any, we've seen in our lifetimes and one year into the pandemic getting control of the virus and ensuring first citizen vaccination remain among our top health care priority. The lessons that countries have learnt from the pandemic all underscore that investing in public health and universal health coverage i.e health for all is not optional but essential. It is also of utmost importance for economies and societies to be resilient in the face of future health, economic and environmental challenges.

The pandemic has also transformed the way the government and private players are bringing change in the health care system. The public and private sectors jointly took responsibility for treatment and India emerged as a country with the lowest death rate. The government has launched the NDHM (National Digital health Mission). The major components of this mission encompass telemedicine, health IDs, health records, along with e-pharmacy and digi-doctor services.

The core healthcare pillars in India are transiting to a care delivery model which is more personalised and focused on preventive and predictive health care. It is creating adequate facilities in every district and ensuring geographic and financial access to all. We target to vaccinate 400 million citizens to enable heard immunity and create a safe environment against Covid. 500 million citizens will be covered under Ayushman Bharat schemes and the rest of the population under private insurance schemes thereby creating universal health coverage and delivering a more equitable, quality and geographically available health care delivery system for all income levels to access.


In many developing countries, financing for health is INSUFFICIENT, INEFFECIENT AND INEQUITABLE
INSUFFICIENT
INEFFICIENT
INEQUITABLE
By 2030, the
GAP
in financing UHC in the 54 poorest countries withh be about
$176 BILLION
per year
$
20-40%
of health spending is wasted
People in developing countries spend
HALF A TRILLION DOLLARS
every year on out-of-pocket health expenses. This pushes
100 MILLION PEOPLE GLOBALLY
into extreme poverty
$
The time to ACT is NOW!
Emerging challenges like aging and chronic diseases will drive health costs even higher
Pandemic disease outbreaks can cause health and economic crisis

It is also about the supply of quality drugs, equipment and consumables and most importantly skilled manpower at every level.

The health-tech ecosystem has been catalyzed and provides a new opportunity to revisit the cycle of patient's clinical assessment, treatment, and monitoring and most important disease prevention. The integration of health care with technology has started blurring the divide and improving patient care services, increasing access, affordability, and lowering costs.

It is giving the digital health community the opportunity to leverage the incredible progress over the past several years in fields such as big data analytics, artificial intelligence, remote learning, and data inter connectivity. Health-tech, which constitutes technological advancements such as medical wearables, telemedicine/telehealth, e-pharmacy, artificial intelligence, electronic health records/medical records, medical applications related to personal health are all poised to grow exponentially.

Significant investment are being made in research and development activities both from the government and private sector in order to propel innovations. By leveraging advanced data and AI models we can design and create the next level of health care solutions to improve patient experiences and system efficiency. Modernising infrastructure using innovative technologies will help ramp up pharmaceutical capacity as well as medical device capabilities making India a major pharmacy for the world. Also significant is the capability and achievement of the private sector in delivering world class

medical outcomes at a fraction of global prices with a little more support private healthcare could ramp up further (it already provides 65% of tertiary care) and not only care for our countrymen but became a global Hub of Medical Value Travel.

I would like to conclude by stating that integrated health isn't just about connecting health care, it's about connecting society. It's about reaching out beyond the nurses, doctors and hospitals, and about bringing together every person, from every system, at every stage of the health care journey. Health care is just one strand of the larger social fabric determining our health, with the rest being determined by socioeconomic factors, such as income, housing, diet, personal choices. Societies need to start talking about healthier living. We need those voices to get together, because that's the only way they will get louder.

A graduate in Science from the Women's Christian College in Chennai, post-graduate in Hospital Administration from Rutgers University, Harvard University and the National University of Singapore, Dr Sangita Reddy is the Jt Managing Director of Apollo Hospitals. She is a Global Healthcare Influencer, Healthcare Technocrat, Social Entrepreneur and Humanitarian. Passionately committed to transforming healthcare system through technological advancements, she is accelerating positive transformation for effective healthcare service delivery. A member of the World Economic Forum, Dr Reddy was also the President of the industry chamber, FICCI for 2019-2020. As a member of the Rockefeller Working Group she contributes to the development of private sector's role in the global healthcare industry. She has been nominated by the Government of India as a Member of the Technology Development Board, Department of Science and Technology.

OLD ORDER CHANGETH


learning

The pandemic has disrupted the school education and higher education sector severely. Education in the post pandemic cannot be the same again. Today or tomorrow, the schools will certainly regain their relevance, but education will have to move beyond classrooms. It is at this outset, the Modi 2.0 government came up with its New Education Policy (NEP).Soon after unveiling of the New Education Policy (NEP 2020), Indian Prime Minister Narendra Modi said that the new National Education Policy is futuristic and as per global standards. The NEP 2020 aims at bringing transformational changes in the Indian education system from global perspectives. The new policy offers a multi-disciplinary, value-based approach focussing on holistic education along with life-skills with special emphasis on skill development to improve high employability rate among our students, the government explained.

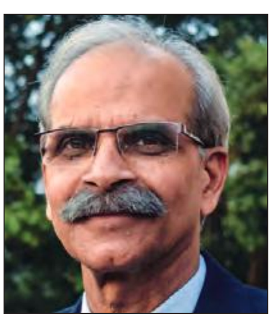
Significantly, India's education policy has been reformed for the first time in a long period of 34 years. This new policy promises to usher in a series of significant changes in our education pattern. At the school level, the new board structure of '5+3+3+4' system will put greater emphasis on the development of a student's foundation and secondary years at school. For example, as compared to the earlier pattern, the number of years entitled as 'pre-school' will be increased, which many educationists think, will help students build a stronger base over a steadier pattern. At the college level also, this policy will be very lucrative. It has proposed that students will be awarded certificates for the completion of every academic year, during graduation.

This will encourage them to nurture and brush up their skills with more confidence, with the backing of a degree, even if they need to leave mid-way due to some issue. Other points, which will surely favour the student community include making colleges autonomous, having a single governing authority for colleges, inviting top global university and allowing multi exit and entry for courses.

> Significantly, India's education policy has been reformed for the first time in a long period of 34 years. This new policy promises to usher in a series of significant changes in our education pattern

The new policy talks of inclusion of professional and choice-based disciplines as part of the higher education. This, in turn, will encourage students to hone their soft-skills. This approach to universalising education will help India attain the SDG4 goals by 2030.

However, the NEP is not without challenges. One of the most difficult parts is to jump from the current system to this system and take along millions of stakeholders, many of whom might need to be completely re-trained. The teachers are likely to see the biggest change and will have to transform at both content as well as pedagogy level to survive in this new world order.



Prof. Virendra K. Tewari

Director
IIT Kharagpur

New pedagogy evolves for better students' experiences

The year 2020 has brought a paradigm shift in our lifestyle and livelihoods. The higher education sector is probably among those to have witnessed the most climacteric effect in India with nearly 38

million students pursuing their education in online mode with e-Learning being explored like never before. As the year progressed, a host of platforms were also adopted, along with evolving new pedagogy for a better student experience. Since late March 2020, while technical aids and software have been powering the wheels of online education, the process of online delivery of lessons and tracking progress was redefined too. At IIT Kharagpur for example, new modes of assignments, lecture delivery like showing graphics and relevant video demonstrations are adopted as components of the lecture delivery process. The lectures are no longer restricted to PPT but involve derivations being shown using various applications. In terms of evaluation and progress tracking, comprehensive-type openbook exams, as well as time-bound pen and paper type tests, were conducted. Post-exam students submitted scanned answer scripts by email within 10-15 minutes after they could complete the technical processing. Various measures were undertaken for the restriction of unfair means.

Being an IITian myself, I firmly believe that it is impossible to take engineering lessons online considering the necessity of the lab classes. In some disciplines, students are being encouraged to run experiments using sensors, tools, electrical and electronic components that can be bought from online marketplaces thus enabling them to build their own micro-labs wherever possible. However, it would be a crucial challenge for most students to adopt this mode of practical learning. May be a time will come when Augmented Reality and Virtual Reality modules will be accessible to every student for conducting personalised experiments, but so far laboratory classes had to be deferred, Most importantly the learning culture which prevails at IITs cannot be replicated in any digital mode in the near future. In a Pan IIT USA forum organised in December 2020, where experts pointed out that 97 per cent of the IIT students and their families want to go back to their campuses. I had insisted that for IIT education, a hybrid model is not a practical solution more so at the postgraduate level. And I still stand by that.

Could a solution be envisaged under the New Education Policy 2020? While some experts are contemplating steering the education system through optimal use of technology, I strongly advocate that NEP will democratise the education system but not replace contact classes in programs that absolutely demand it like engineering, medical and other disciplines exclusively relying on practical classes. The educational pedagogy, however, will certainly change with multilingual and technology-based communication, digitised learning materials, wider reach of quality materials to all students across institutions. Another aspect NEP 2020 will introduce is our thinking pattern which is highly linear due to our age-old conformity of the redundant

Macaulay education while the evolution of our own languages and ancient literature show our intellectual growth was multidimensional. Multilingual education, as well as multidisciplinary program structure, where technology will cross art forms, where Mathematics will be taught in the form of poetry, will enable the blooming of original thoughts through a better insight of human challenges and roadmap of humankind. And I have no doubt about that.

Prof Virendra Kumar Tewari, an alumnus of IIT Kharagpur (B.Tech. (Hons) in Agricultural Engineering, M.Tech. in Farm Machinery and Power Engineering and Ph.D. in Engineering) is the Director of IIT Kharagpur. He has been conferred with several awards and accolades by Indian Society of Agricultural Engineers, Indian Society for Technical Education, National Research Development Corporation, ISAE Gold Medal, Jawaharlal Nehru Award for his contributions in the field of agricultural mechanization. He was also associated with JEE from 2003-2006 and was the All India Organizing Committee Chairman of JEE from 2005-2006. His pioneering initiatives included designing of question papers, which are being followed even now. His core research areas include Tractor system design, Ergonomics and industrial safety, Design of agricultural machines, Precision agriculture and Machinery system management.

Byju Ravendran

Founder and CEO
BYJUS

Building tomorrow's leaders in today's digital classrooms

The landscape of the Indian economy has changed dramatically over the last decade, propelled largely by rapid digital transformation. This adoption has bolstered considerable advancements in digital infrastructure across sectors, most significantly and tangibly in the education space.

The integration of information technology in education was happening even before the pandemic hit, but the pace of adoption has sky-rocketed since 2020. With tech-enabled learning tools and digitally empowered teachers, students — irrespective of location, socio-economic conditions or learning proficiencies – now have live access to quality content. The adoption of online and hybrid learning models will persist and flourish post-pandemic.

The emergence and acceptance of tech-enabled and flexible education mediums have ensured that students continue their learning journeys despite challenges. This period of disruption has made it clear that the education ecosystem has changed significantly — and indelibly — in the new normal. This is an endorsement of the quality of India's teachers and their willingness to walk the extra mile for their students.

However, we have only begun to scratch the surface of our country's digital learning potential. While technology has given us the right tools to increase access to quality education, there's still a lot to be done to bring down gender- region- and income-based digital divides. Bridging these gaps is the best way to ensure that India will continue to play a leading role in the creation of a global, digital, knowledge economy.

India holds a distinctive advantage over the rest of the world with one of the youngest working class populations. It is crucial that we use the next two decades to provide world-class education to our children and job-relevant upskilling opportunities to our employed and employable youth.

The leaders of tomorrow are being built in the classrooms of today, and we as educators harbour the responsibility to shape these future generations. Data suggests that 65% of children will enter jobs yet to be invented. The only way in which we can prepare them for these unseen jobs is to create a community of active learners with the right skills, aided by tech-enabled learning programs that make education personalised, engaging, and fun.

While the digital divide is a pertinent challenge, the physical inequity is perhaps a bigger hurdle. It is extremely critical that each and every child has an equal opportunity to learn, however it is only a small proportion that does get this benefit. While the role of teachers remains uncontested in classrooms, blending technology with pedagogy holds the key to equitable access to education.

The National Education policy 2020 is a step in that direction. An emphasis on critical thinking and creativity will help prepare young students to be future-ready, while the focus on conceptual understanding will encourage more self-learners.

As the home to the world's largest K-12 population, the universalisation of early school education, the push to improve gross enrolment ratio, and a renewed focus on new life skills such as coding will help create a stronger pipeline of future leaders.

The need of the hour is not to reform education, but transform it to create lifelong learners. The Ministry for Electronics and Information Technology (MEITY) estimates that the digital economy can contribute up to $1 trillion to India's $5 trillion economy by 2025.

Digital education – from K-12 to upskilling - has the ability and the intent to add many more trillions to India's growing economy in the next two decades. And that, truly, will be the best return on investment in India's edtech sector.

Byju Raveendran is the Founder and Chief Executive Officer of world's leading ed-tech company and the creator of India's most loved school learning app - BYJU'S, which is reinventing how students learn. An entrepreneur by chance and a teacher by choice, he started BYJU'S with the vision to help students fall in love with learning and change the way India learns. Born to teacher parents in Azhikode, Kerala, India, Byju is an avid sportsperson (expert in six games) and believes that children can learn a lot outside the classroom by playing multiple games. Byju has built the brand BYJU'S purely on passion and the drive to create self-initiated and life-long learners. He started BYJU'S classes in 2008 which became a household brand due to his unique teaching style and focus on learning. With the aim of reimagining learning from its roots, Byju harnessed the power of technology to reach out to the K-12 segment of students across the country. In 2011, the company was incorporated (Think and Learn Pvt Ltd) with focus on the school (K-12) space. The real breakthrough however, was in 2015 with the launch of the BYJU'S – The Learning App which has seen a phenomenal engagement - with 80 million registered users and reach of over 1700 cities and towns in the country so far.

INDIAN REALT SPACE LOOKS RIDING ON PE INFLOWS

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S UP,

If Private Equity (PE) investments into the sector is any indicator of how the sector is performing or promises to be in the days to come, things certainly seem to be looking up for the Indian real estate sector. PE investors coughed up more than $6.27 billion in Indian realty space in FY21, up 19 per cent from the FY20's level of $5.8 billion. And mind you that this has happened despite the disruptions made by the pandemic.

That's not all. In what reflects a great degree of optimism by the overseas PE funds for the Indian market, as much as 93 per cent of the total PE investments pumped into Indian real estate was by foreign investors. Actual investments by foreign PE funds nearly doubled from $3 bn to $5.8 bn in FY21. Domestic PE funds, on their parts, invested merely $300 mn compared to $420 mn in FY20. What has been quite encouraging is that the average ticket size of PE deals also jumped up by 62 per cent – from $110 mn in FY20 to $178 mn in FY21. While structured debt registered a robust growth of 84 per cent, equity, on its parts, too recorded a growth of 15 per cent during this period. Quite significantly, structured debt was largely towards portfolio deals instead of project-level assets. Interestingly, the top 10 deals alone contributed nearly 78 per cent of the total PE inflows in FY21 as against 67 per cent in FY20.

All these can be attributed to the fact that India has a strong underlying demand for office space with quality workforce and average rentals available at less than a dollar per sq. ft. per month. Besides, the successful REIT listings did provide a good monetising option for PE investors. And that, in turn, led to a stronger demand for good quality rental earning office and retail assets. The other factor driving this surge in foreign PE investments has been good entry valuation coupled with the option to accumulate a healthy mix of portfolio assets.In another significant trend, facing the real estate sector, the share of asset classes like commercial, retail and hotel has been quite good. It is pertinent to mention here that the asset class-wise bifurcation shows lower percentage. However, when considered along with portfolio deals (where bifurcation is not available), the share of these assets classes is very strong. Out of the total fund inflows in FY21, as high as 66 per cent ($6.27 bn) was across portfolio deals in multiple asset classes. In contrast, in FY20, out of the total $5.28 bn total inflows, only 8 per cent of the total comprised of portfolio deals.

On the Ground Zero, the latest announcement by the Centre that Covid-19 vaccination will be made available for all citizens above the age of 18 years from May 1 onwards has also gone down very well among the realty players. Developers think that the move will boost the construction activities and address the issue of reverse migration of labourers to some extent. Builders, themselves, are also doing their bits to ensure that the second wave of the pandemic does not spark another wave of reverse migration as this may reverse the gains made during the last two quarters.

Capital Provider	Recipient	Location	Asset Class	Deal Amount (USD Mn)
Brookfield	RMZ	Multiple	Portfolio	1,984
Blackstone	Prestige Estates	Multiple	Portfolio	996
Farallon Capital & SSG Capital	Edelweiss	Multiple	Portfolio	400
Apollo Global Management	Piramal Capital	Multiple	Portfolio	350
Oak Tree	Indiabulls HFL	Multiple	Portfolio	297
Carlyle	Nxtra Data	Multiple	Data Centre	235
Ascendas	Cybercity Developers	Bengaluru	Commercial	195
Varde Partners	Phoenix Group	Hyderabad	Commercial	155
GIC	Phoenix Group	Hyderabad	Commercial	142
DCCDL*	Hines	NCR	Commercial	105

* DLF Cyber City Developers Ltd. (DCCDL) is a JV between DLF & GIC

Source : ANAROCK

Anuj Puri

Chairman
ANAROCK Property Consultants

Millennials are the new homebuyers

In a world drastically changed by COVID-19, Indian real estate moved on to rebuild, reinvent and reimagine its future. Surprisingly, residential sector stood much resilient than other sectors. A host of factors were responsible for this including all-time best affordability, lowest-best home loan rates (6.7 per cent), developer deals and discounts, controlled launches, organised players holding the fort, and various Government and RBI measures. In fact, during the lockdown period itself several developers changed their business strategy and adapted to new market realities. This significantly helped them to bolster sales despite the pandemic.

In terms of data, ANAROCK research reveals that housing sales in entire 2020 bottomed out and stood at 1,38,350 units in the top 7 cities - rebounding to more than 53 per cent of the overall sales in 2019 - approx. 2,61,500 units were sold in 2019 across top 7 cities. We saw q-o-q growth in both sales and new supply post Q2 2020. The last quarter of 2020 (Oct.- Dec.) saw housing sales of approx. 50,900 units in top 7 cities. And, if similar sales trends continue into the next quarter or two, we can easily expect housing sales to fully recover by mid-2021.

In terms of policy and finance measures, easily, RBI's massive repo rate cut of 140 bps in 2020 coupled with six months moratorium of EMIs on all outstanding loans against Covid-19 pandemic was the biggest fight India ever saw. Repo rate cuts led to home loan interest rates reaching all-time low – almost 6.7% now. This is a major factor driving housing demand presently.

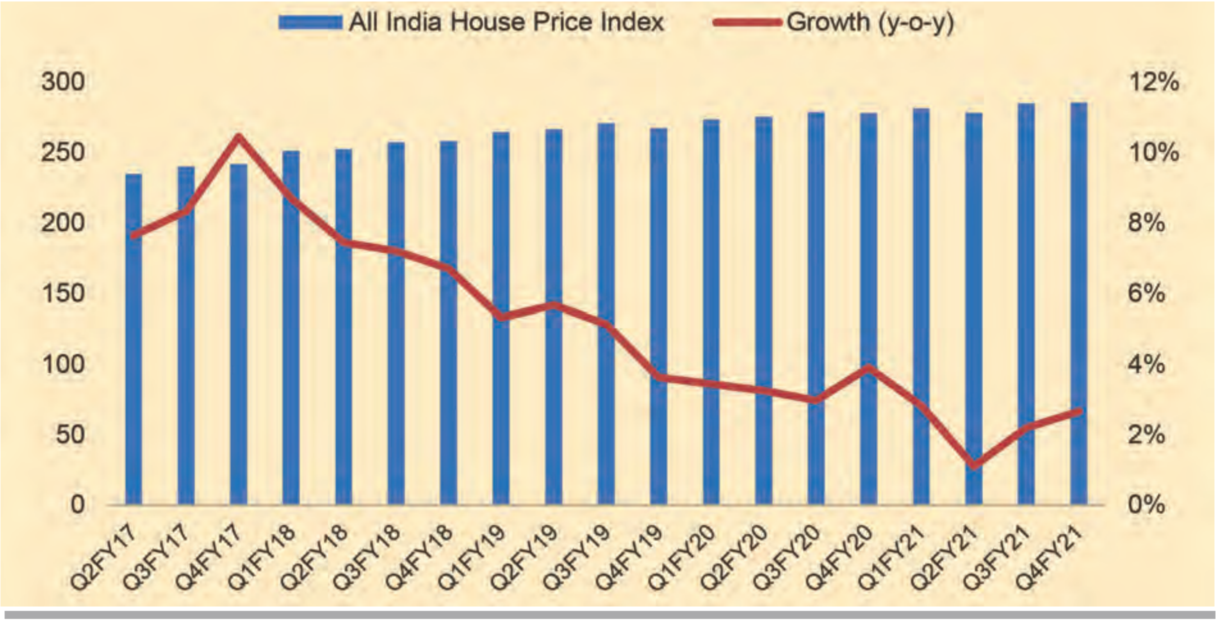
Further, the government's Swamih Fund already sanctioned INR 12,079 Cr for over 81,000 units across 123 projects in the country. Due to this, despite COVID-19, we saw several previously-stuck projects complete in 2020. As per ANAROCK Research, as many as 190 stuck/delayed housing projects accounting for over ~73,560 units were completed in 2020. As of 2020-end, altogether 1,132 projects accounting for approx. 5.02 lakh units (launched in 2013 or before) are now stuck in various stages of (non) completion in the top 7 cities. Back in 2019-end, there were as many as 1,322 stuck projects comprising approx. 5.76 lakh units.

Post COVID-19 world - Homebuyer Preferences

COVID-19 altered the way real estate conducted business. Some notable learnings are that millennials are the new homebuyers, digital is the new normal and data-led research is no longer just an option but a necessity. Moreover, buyer preferences have also changed significantly.

- With work-from-home gaining viability, many future homebuyers are looking to shift to the for bigger homes and a better lifestyle - at more affordable prices. Thus, the previous 'gold standard'

HOUSE PRICE INDEX



Source : RBI BWR Research

of Indian housing - the walk-to-work / short drive to work, by definition only in and around central corporate workplace hubs - shed much of its popularity.

- Many prospective homebuyers now prefer to shift to self-sustained gated communities where their entire family's needs are sufficiently met. Mostly, these housing societies offer companionship, safe and secure environment, while providing amenities that reduce the need to venture out.

- Notably, top cities like Bengaluru, Hyderabad, Chennai, Pune and Gurugram are seeing high demand for plots in the wake of the new realities presented by COVID-19. Many are now looking to buy land as a long-term investment. Alternately, few are even mulling to buy plots in gated societies and build and live in them. Such self-owned homes provide better social distancing in comparison to apartments as well as gives the option of living in greener and open spaces.

That said, the sector also needs some measures that will further bolster demand in 2021. Ideally the government should have given further tax sops to homebuyers in the recent Budget. We anticipated personal tax relief or hike in the INR 2 lakh tax rebate on housing loan interest rates under Section 24 of the Income Tax Act up to at least INR 5 Lakh. GST Waiver for under-construction homes would further boost demand.

An alumnus of Shriram College of Commerce, New Delhi and a Fellow of the Royal Institution of Chartered Surveyors, UK, Anuj Puri is the Founder and Group Chairman of ANAROCK, the largest independent residential agency in India. He has added new services to its offering to include retail, hospitality, investment banking, land services, strategic consulting, warehousing, industrial & logistics. He has over 30 years' experience in Indian and global real estate markets and is a trusted adviser to developers, occupiers, investors and the government. Anuj is widely acknowledged with revolutionizing the sector with his visionary outlook and technology-based solutions. Prior to his current role, Anuj was Chairman and Country Head of JLL, India and a key member of the Asia Pacific Leadership Group and Head of the Global Retail Leasing Board.

Retail and E-commerce

E-tailing is the new face of Indian Retail

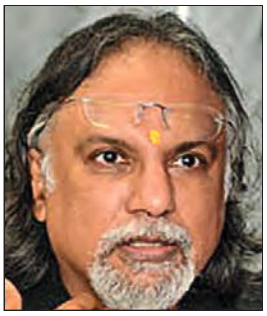
Indian retail industry, over the years, has come up as one of the most dynamic and fast-paced industries, thanks to the entry of a number of new players. India's total consumption expenditure, which was $1,824 billion in 2017, is expected to reach close to $3,600 billion in the next one year. Indian retail industry accounts for more than 10 per cent of the country's gross domestic product (GDP) and nearly 8 per cent of the employment. India is the world's fifth-largest global destination in the retail space.

Like most other industries, retail industry (read brick and mortal retail) has also been hit hard by the pandemic. E-commerce, which was growing anyways, is probably creating the biggest revolution in retail industry, and this trend is likely to continue in the days to come. Retailers hardly have a choice but to leverage digital retail channels (E-commerce), which would enable them to spend less money on real estate while reaching out to more customers in tier II and tier III cities. Last year, for instance, the digital wave made a lot of kirana stores adopt technology at an accelerated pace. This made a lot of middlemen in the traditional multi-stage distribution bypass, and digital flyovers were built over distribution channels in India. At this outset, India's e-commerce industry is expected to increase by 84 per cent to $111 billion by 2024, driven mostly by mobile shopping, which, in turn, is projected to grow at 21 per cent annually over the next four years.

While exorbitant real estate prices, high operational costs and the lack of appropriate retail spaces have restricted the expansion of larger physical stores, on the other hand, increasing internet penetration and smartphone and social media use have driven the growth of e-commerce in India.

Sector analysts think that despite several inefficiencies, kirana stores, which follow a demand fulfilment model, will continue to exist in India, and online stores will have to focus on actively creating demand.

Going forward, the greatest challenge will be to encourage small retailers to adopt digital technologies and integrate into the e-commerce ecosystem.



Krishan Giri

Former Managing Director and Vice Chairman
Accenture, India

Digitisation emerges great leveller for retail sector

From owner-manned-small shops to larger format convenience stores and supermarkets, and from there to single and multi-brand retail and from there to e-retail and re-retail-the Indian retail industry has traversed a long way over the years. Post the outbreak of the pandemic, like in most other sectors, the old order has changed in the retail sector. In order to avoid the risk of slipping into the depths of bankruptcy and debt, many businesses are shifting to e-retailing and re-retailing, supplying customers with contactless payments and offering services to the customers that will help their businesses. The pandemic has certainly changed the landscape of how business is conducted in the retail industry.

Mind you that the Government of India has allowed 100 per cent FDI in online retail of goods and services through the automatic route, thereby providing clarity on the existing businesses of E-commerce companies operating in India. The focus to improve digital infrastructure in Tier 2 and Tier 3 markets will certainly be favourable to the e-commerce sector.

> There is no doubt whatsoever that retailers must come up with new digital strategies. They must be digitally-enabled, otherwise they will lose significant market share

E-commerce, anyways, is expanding steadily in India. Customers have the ever-increasing choice of products at the lowest rates. E-commerce is probably creating the biggest revolution in the retail industry, and this trend is likely to continue in the years to come. Retailers should leverage digital retail channels (E-commerce), which would enable them to spend less money on real estate while reaching out to more customers in tier II and tier III cities.

By 2024, India's e-commerce industry is expected to increase by 84 per cent to $111 billion, driven by mobile shopping, which is projected to grow at 21 per cent annually over the next four years. In 2020, the most common payment methods online were digital wallets (40 per cent), followed by credit cards (15 per cent) and debit cards (15 per cent). Online penetration of retail is expected to reach 10.7 per cent by 2024 compared to 4.7 per cent in 2019.

Let me highlight some other interesting statistics, this time from United Nations Conference on Trade and Development's B2C E-commerce Index 2019. India ranks 73 out of 152 countries on its readiness to support online shopping. India leads among South Asian countries, while Asian states like Iran (42), China (56), Kazakhstan (57), Azerbaijan (62), Vietnam (64) and Tunisia (70) fare better than it on the index.

Going by the same report, India's domestic e-commerce market will reach ₹13,97,800 crore ($200 billion) by 2027. The grocery and fashion/apparel sectors are poised to drive this growth, triggered by expanding internet and smartphone penetration. India is the second-largest smartphone market, accounting for nearly 10 per cent of global smartphone sales, and the number of domestic smartphone users is expected to rise to approximately 450 million by 2021-22, from 260 million in 2016-17. While internet penetration in India grew to nearly 34.42 per cent in 2017, from a mere 4 per cent in 2007, the number of internet users is expected to rise to 829 million by 2021, from 445.96 million in 2017. Internet penetration in rural India is projected to grow by 45 per cent by 2021, up from almost 22 per cent in 2019. Online shoppers in India are expected to reach 220 million by 2025, from 120 million in 2018.

Keeping these projected figures in mind, there is no doubt whatsoever that retailers must come up with new digital strategies. They must be digitally-enabled, otherwise they will lose significant market share.

I am not saying that physical retail will completely wither away. But retailers will also have to embrace new formats like pop-up stores, trunk shows, AR-based merchandising, and other innovative formats. Consider what some of the retail biggies have done to increase their footprints in tier-II, tier-III cities and strengthen their reach-out initiatives.

- In May 2021, Big Bazaar rolled out its two-hour delivery service in small cities,such as Bhopal, Mangalore, Raipur, Ranchi, Guwahati, Kanpur, Lucknow and Varanasi, and recorded a boost in orders
- In April 2021, Flipkart expanded its hyperlocal delivery service Quick to six new cities including Delhi, Gurugram, Ghaziabad, Noida, Hyderabad and Pune as the demand for essential goods on e-commerce platforms surges amid the second wave of the pandemic.
- In March 2021, AP Group announced an expansion plan for their Italian brand Just Cavalli in India with the launch of 200 offline stores in 2021.
- In March 2021, Realme announced to expand retail footprint in India with flagship stores. It is planning to launch its first flagship store (over a 10,000 sq. ft. area) in Gujarat.
- On March 25, 2021, Xiaomi introduced a new initiative 'Develop with Mi' (GWM). GWM plans to have 30,000 touchpoints in a year and 6,000+ retail stores in the next two years.
- In March 2021, ASICS expanded its retail concept in India with a new store in Bengaluru.

- In March 2021, Vivo announced plan to open nearly 100 exclusive retail stores across India in 2021 and it aims to cross the 650-store mark in India by the end of 2021.
- In March 2021, Unicorn, a premium Apple reseller, announced plan to launch 4-6 new flag ship stores in India by FY22.
- In March 2021, Mi India launched a ₹100-crore ($13.62 million) support plan over the next two years for its retail partners.
- In February 2021, Greyweave, a hand-made carpets and rugs brand, announced to invest ₹75 lakh ($102,875.65) for the firm’s offline expansion plan.

From a global perspective, consider this example. Walmart's US e-commerce sales surged 97 per cent in Q2' FY20, but the growth since then stalled: the retailer reported only a 6 per cent bump in Q2'FY21, compared to last year. In comparison, Amazon reported a 22 per cent increase in sales (including subscriptions) in North America for the quarter that ended June 30. Walmart credits the slowdown to the return of in-person shopping, but the rise of e-commerce will continue to put pressure on the retailer.

Back home in India, the emergence of supermarkets and hypermarkets notwithstanding, the growth of online grocery stores such as BigBasket and Grofers, and other e-commerce sites remain a preferred option among a majority of Indians.

Unlike in the past, today even some of the most premium and sought-after brands such as Louis Vuitton, Versace, Armani, Victor Hugo are bought and sold online. The advantage is if one does not like something after receiving it, one can return it easily. Yes, one can talk about the ‘look and feel’ factor, which is missing in online shopping. But then some companies and brands have started offering unique experiences through augmented and virtual reality. Let's now look at the small retailers. I think small retailers, smaller players and even artisans and craftsmen and small boutique owners will have unique opportunity sharing the same platforms with bigger players by digitisation and adoption of technology. That's the advantage of technology. And that way, I am confident that digitisation and technology adoption will emerge as a great leveller in the retail sector.

The other significant trend which we may see is that some bigger and premium brands may come up with some products and brands a few notches lower on the value (read price) chain to compete within the growing middle market and monetise against brand codes.

A global seasoned executive and results-oriented former Managing Partner & Vice Chairman of Accenture India and Management Consulting-APAC, Singapore, Krishna G V Giri is currently Advisor (Industry Promotion), Andhra Pradesh Government. With almost three decades of experience in Management Consulting and Technology services, Krishna Giri worked extensively in the government sector in Asia Pacific (including Japan, Singapore, Brunei, Malaysia and Thailand) and emerging markets like India, Sri Lanka and Vietnam on Entertainment, Education and Health. He has a Masters Degree in International Affairs and Public Policy from The Fletcher School of Law and Diplomacy - Tufts University. He is alumnus with Kellogg - Northwestern University and completed few programs with IMD and INSEAD Singapore. Krishna was invited twice as a Keynote speaker (the only Foreign Speaker outside Japan) at a Round Table conference attended by top 30 CEOs of Japanese MNCs. He was the Lead Partner for Digital Transformation for Aadhaar. Consulting & Tech implementation with cutting-edge Biometrics solutions was honored with 21st Century Achievement Award by Computer World in 2013.

INDIA NEEDS 'WELL PERFORMING CITIES', INTEGRATED INFRA DEVELOPMENT


MAA

India, despite being one of the largest economies in the world, often lags far behind in terms of having world class infrastructure. Ironically, according to some economic studies, the lack of proper infrastructure is responsible for pulling down India's GDP growth by 1-2 per cent every year. India's Eleventh Plan had identified inadequate infrastructure as one of the key constraints for rapid industrial and economic growth. The Plan had aptly advocated the need for massive expansion on investment in infrastructure based on a combination of public and private investment, and subsequently through various forms of PPPs. The total investment in infrastructure as a percentage of GDP was also expected to be in the range of 7-9 per cent.

One must remember, at this point that the growth of Indian economy, to a great extent, depends on how the Indian policy makers can strike a balance between urban development and infrastructure growth. A number of Indian cities are considered to be extremely vibrant and full of activities and energies. However, there are many, who think that Indian cities, over the years, are turning out to be disordered, complex and often too congested, for more reasons than one.Having said these, one must also remember that the urban population in India is larger than the entire US and is second only to China. There is also no doubt that this population will grow and going by the indications, may actually double in the next couple of decades. Therefore, not only the scale and potential is enormous, but the complexities are equally enormous. Challenges are also humongous. And India, by all means, needs well performing cities and an integrated infrastructure development planning to be in place to meet these challenges of inevitable and rapid urbanisation. Unfortunately, there are certain issues with the existing model of city development in India. What we often get to see is that either unplanned expansion within cities, or planned traditional expansion within the cities, or semi-planned traditional expansion via satellites are being carried out. Neither of them is the right kind of model. And these issues need to be addressed, the sooner, the better.

India will have to build new cities to accommodate the shift of the population and the population surge, in the process. However, these new city projects will have to be perceived and considered as infrastructure projects and not as real estate projects. That's the basic. Then the authorities will have to ensure that these cities are green, sustainable, livable and for all practical purposes, a well-planned integrated development. The authorities will have to create conducive working environment to give a boost to private investment under PPP model for sustainable development. Improvement of infrastructural facilities and creation of durable public assets and quality oriented services in existing cities & towns will have to be given due importance.Quite significantly, the 12th Plan had focussed on luring in private sector players to cough up nearly 50 per cent of the country's total infrastructure investment target. To back that up India needs to short term actions and long term planning and measures. Along with the fiscal support, the government must come up with enabling policies and ensure that the procedures are streamlined, while protecting the interests of investors and consumers. Indian economy can only be on a high growth trajectory, through translating its infrastructure dreams into action.

Debasish Sen

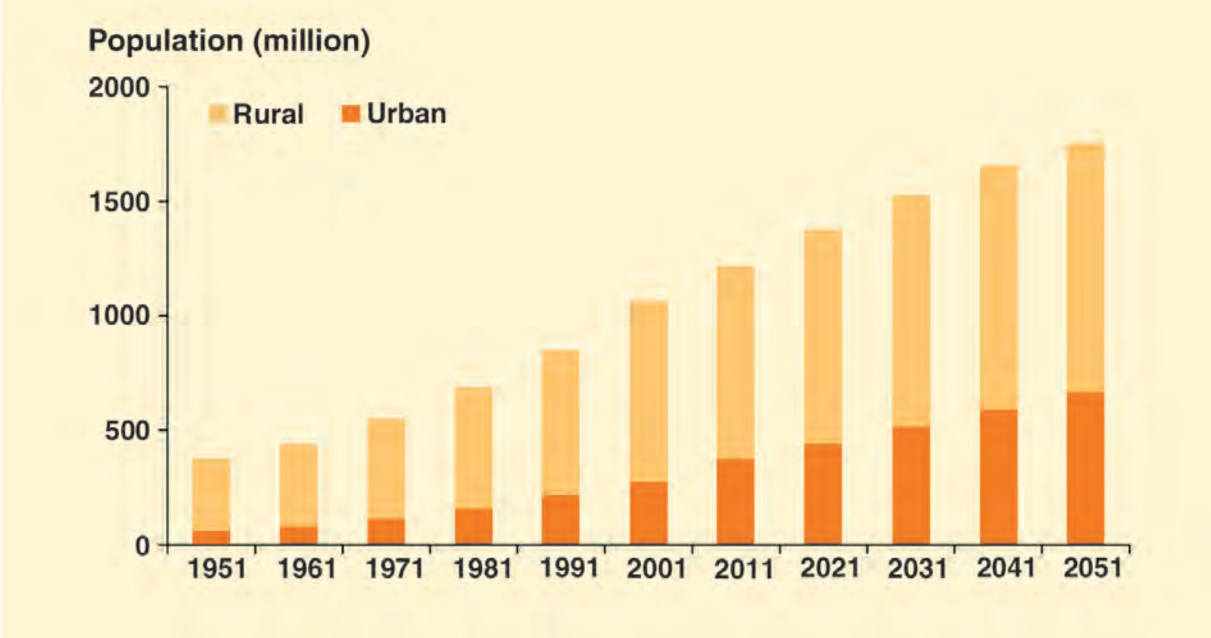
Managing Director, Hidco and Former Principal Secretary
Urban Development, Govt of West Bengal

Role of City Development in bringing Economic Prosperity : India 2030

Cities are the engines of growth. In India, cities are responsible for 60 per cent of the nations's GDP. Edward Glaeser, in his book "The Triumph of the City" explains how "(cities) make us smarter, healthier, greener, happier and richer". But why is this so? What factors make the cities economically vibrant? Why do more than half of the world's population prefer to stay in the cities? And what can be done to accelerate the economic growth by increasing the number of people living in towns in India (now 31 per cent of India's population lives in urban areas).

Cities attract people for the three E's: Education, Employment and Entertainment. A high concentration of people make per capita costs of investment low. A multi-crore multiplex movie hall in a

> POPULATION INDEX



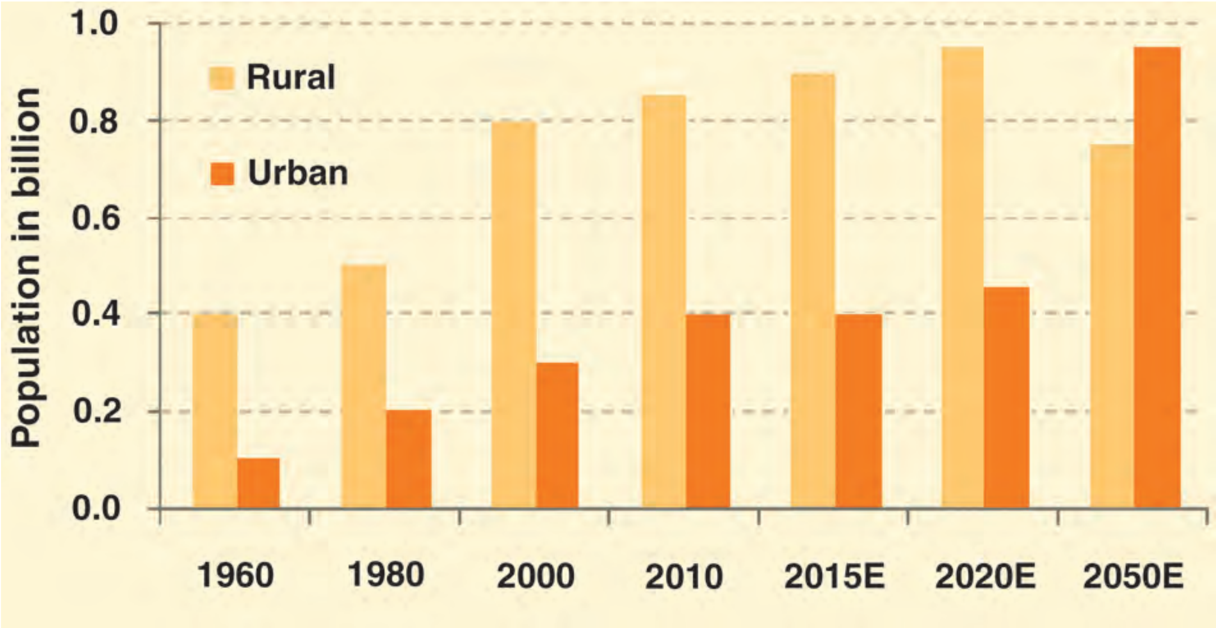
village with a few hundred citizens does not make commercial sense, for example. So a virtuous cycle is created where more people make costly investment on infrastructure in dense cities. This capital infusion and the consequent improved infrastructure creates economic opportunities, even at its conception and construction phase, more when commissioned.

Cities create a level playing field to all job seekers. Anonymity of a city dweller allows her to be employed irrespective of family, religious or caste backgrounds. Talent is respected and creativity and productivity of the individual worker or manager are recognised which, in turn, leads to more innovations, improved productivity and thus a confluence of the most efficient brain power. This superior collective intellect propels the city into creation of more innovative start-ups and economic prosperity.There is however not much merit in making huge metropolitan cities like Mumbai, Delhi or Kolkata to spread out organically in an unplanned urban sprawl to accommodate the ever increasing rise in urban population. In order to guide the increasing urbanisation, it is necessary to create new urban habitats close to existing towns and cities. This is important as because a disjointed urban centre like Kalyani for example, takes much longer to grow than a satellite town of Kolkata like Bidhannagar. Thus we see Noida, Gurgaon, Naya Raipur, Amravati, Navi Mumbai, New Kolkata and others taking quick shape in all corners of the country.

In creation of satellite towns, it is important to have an economic focus. Thus rather than general purpose housing oriented town, cities succeed better if they have an economic theme. The Township Policy of the Govt of West Bengal, for example, where I was involved in framing policy guidelines as Principal Secretary in the Urban Development, lay down that 25 per cent of the area of any new town in the private or public sector must have an economic zone. This policy later yielded proposal for townships with Education, Health, Old Age Care, Sports, Skill Development and even simply Innovation as themes in West Bengal. Many of these are in various stages of development now. In New Kolkata, there are four economic hubs: Tech Hub, Financial Hub, Health Hub and Education Hub.

In creating the extra spaces in urban centres, densification is required. It is said that Indian cities are like ‘chapatis’: flat, two-three storied sprawling across kilometres where connecting buildings with

> INDIA'S PACE OF URBANISATION



water, power, roads and data becomes expensive. It is necessary to relax Floor Area Ratio restrictions, to aim for vertical cities and to make 15-minute cities with all utilities within the neighbourhood where one can walk or cycle. Expensive investments on Metros and LRTs can be avoided if mixed development is encouraged, roads are made for walking and not vehicles, cycle lanes are built and public electric bicycles are made available.

It is also important to see that cities do not become concrete jungles, that urbanisation does not destroy sustainable development. A circular economy with stress on recycling is the goal. This can be achieved if attention is paid upfront, and not as an afterthought. Thus, planned well-thought out solutions for Solid Waste Management, Sewage Treatment, Public Toilets, Public Parking,open recreational spaces, pocket forests, green buildings, reliance on renewable energy must be implemented prospectively and not retro-fitted as an afterthought. It is necessary to pay frontal attention also to the economically weaker sections of the society so that we don't create slums first and then try to rehabilitate, to elderly citizens so that we don't have the problem of underutilised houses occupied by lonely persons while the young fight for a Paying Guest accommodation in the outskirts of the city.

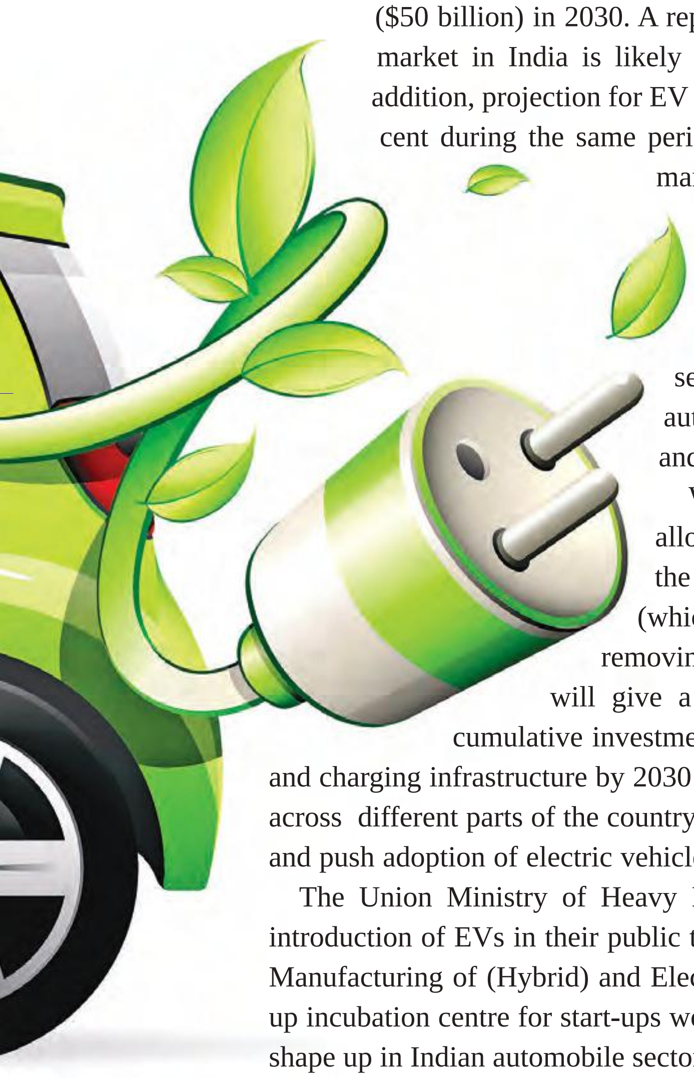
It is important to encourage urbanisation to let India fly. India needs a policy framework that promotes an urban development pattern characterised by high population density, walkable and bikeable neighbourhoods, preserved green spaces, mixed-use development and mass transit. The process must be consciously monitored so as to reach a cruising speed by 2030.

An alumnus of Kolkata's prestigious Presidency College, Saha Institute of Nuclear Physics (Post-MSc Diploma), ENA, France (Diploma in Public Administration), JFK School of Harvard University and IMF Institute, Washington DC, US, Debashis Sen is the Chairman & Managing Director of West Bengal Housing Infrastructure Development Corporation (WBHIDCO), a government company that is developing New Town, Kolkata. He is also the Chairman of New Kolkata Development Authority (NKDA) and Naba Diganta Industrial Township Authority (NDITA). As Indian Administrative Service officer (IAS), Sen has served in various capacities including District Magistrate, Chief Electoral Office, Principal Secretary, Department of Information Technology & Electronics and Additional Chief Secretary, government of West Bengal.

Automobile

India nurtures EV ambitions, to push for faster adoption

Come 2026 and India, which at present, manufactures 26.36 mn vehicles including Passenger Vehicles, Commercial Vehicles, Three Wheelers, Two Wheelers, and quadricycles, will be the world's third-largest automotive market in terms of volume. Indian automobile industry, which is estimated to have an overall market size of $118 bn, is expected to reach $300 bn by 2026, in terms of value. Quite significantly, the electric vehicle (EV) market in India is expected to grow at a CAGR of 44 per cent till 2027. If things move the way it has been envisaged, the annual sales of EV will hit 6.34 million units by 2027. According to NITI Aayog and Rocky Mountain Institute (RMI), India’s EV finance industry is likely to reach ₹ 3.7 lakh crore ($50 billion) in 2030. A report by India Energy Storage Alliance estimated that EV market in India is likely to increase at a CAGR of 36 per cent until 2026. In addition, projection for EV battery market is forecast to expand at a CAGR of 30 per cent during the same period.Of the total vehicles manufactured in India now, as many as 4.7 million are exported. And in order to help ramp up the overall manufacturing capabilities and increase exports, the Centre has introduced production-linked incentive scheme (PLI scheme) under Atma Nirbhar Bharat for the Automobile and Auto Components sectors with a total capital outlay of ₹ 57,042 crore. Indian automobile sector is to be seen in light of these facts and figures.



While some of the recent government moves like allowing 100 per cent foreign direct investment (FDI) under the automatic route, the voluntary vehicle scrappage policy (which is likely to boost demand for new vehicles after removing old unfit vehicles currently plying on the Indian roads), will give a boost to traditional automobile sector, the proposed cumulative investment of ₹ 12.5 trillion ($180 billion) in vehicle production and charging infrastructure by 2030 and the process to set up vehicle battery charging points across different parts of the country would help meet India's electric vehicle (EV) ambitions and push adoption of electric vehicles.

The Union Ministry of Heavy Industries, has shortlisted 11 cities in the country for introduction of EVs in their public transport systems under the FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles in India) scheme. The Centre will also set up incubation centre for start-ups working in the EVs space. Going forward, how things will shape up in Indian automobile sector will depend on how efficiently and effectively (and in a time-bound manner) these schemes and plans are executed.

Rajeev Chauhan

Director Network & Product
Volvo Car in India

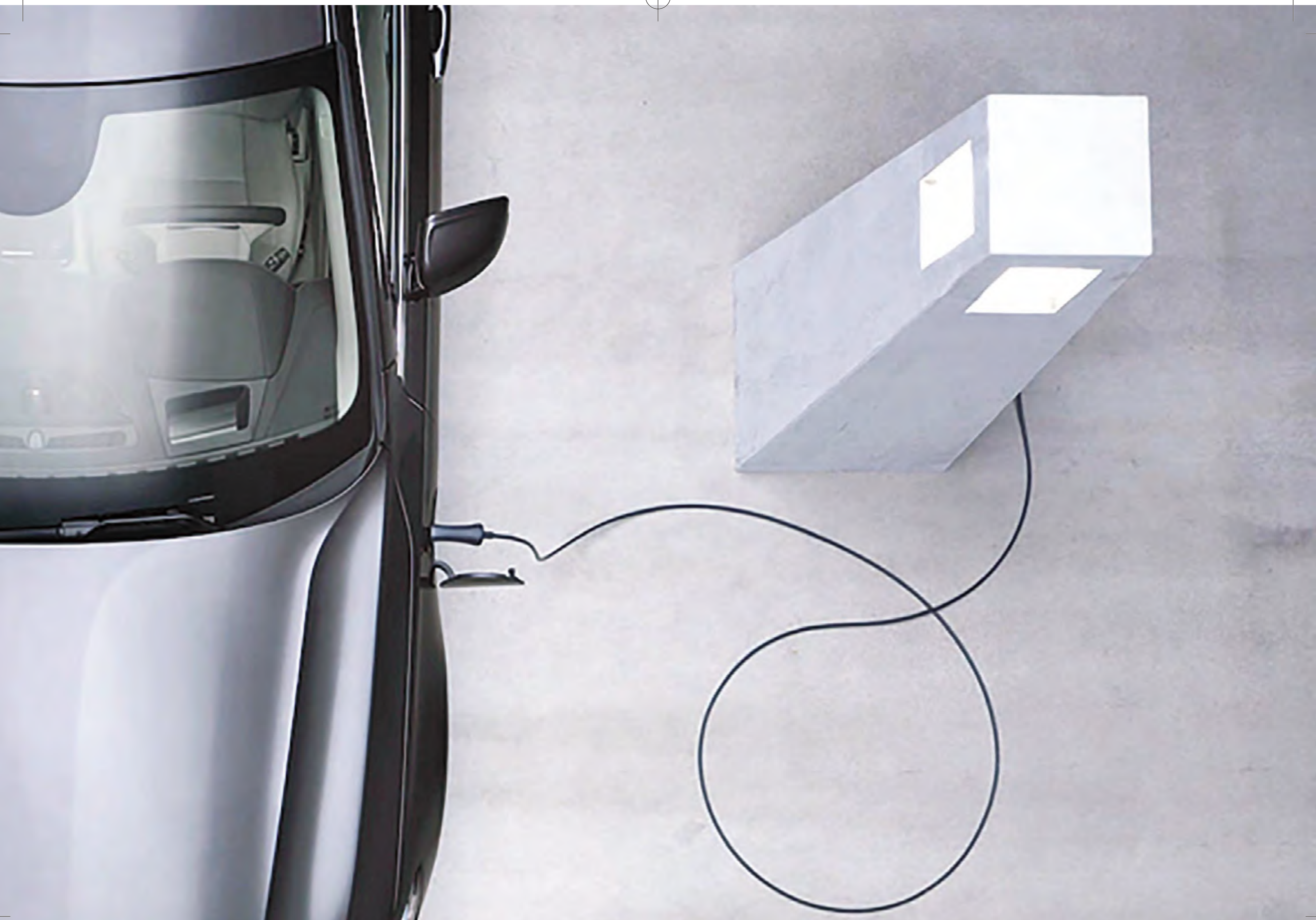
Infra and market for EVs can grow simultaneously

Call it a green movement of the sort or something else! Quite in line with the India'a national goal, Volvo Car in India, Indian arm of the Swedish luxury car company, has lined up an ambitious plan of rolling out its maiden electric vehicle in India sometime next year and then will add on at least one new car every year. These will be all fully electric cars. Eventually all the cars from the company's stable will be available on the EV or electric platform.

Hopefully XC 40 Recharge, the first electric vehicle from Volvo India will be launched next year and will mark a new beginning in our journey. Our movement towards electric mobility is in an advanced stage.

This has to be seen in light of the fact that the electric vehicle (EV) market in India is expected to grow at a CAGR of 44 per cent till 2027. If things move the way it has been envisaged, the annual sales of EV will hit 6.34 million units by 2027. According to NITI Aayog and Rocky Mountain Institute (RMI) India's EV finance industry is likely to reach ₹ 3.7 lakh crore ($50 billion) in 2030. A report by India Energy Storage Alliance estimated that EV market in India is likely to increase at a CAGR of 36 per cent until 2026. In addition, projection for EV battery market is forecast to expand at a CAGR of 30 per cent during the same period.

Significantly, the proposed cumulative investment of ₹ 12.5 trillion ($180 billion) in vehicle production and charging infrastructure by 2030 and the process to set up vehicle battery charging points across different parts of the country would help meet India's electric vehicle (EV) ambitions and push adoption of electric vehicles. The Union Ministry of Heavy Industries, has shortlisted 11 cities in the country for introduction of EVs in their public transport systems under the FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles in India) scheme. The Centre will also set up incubation centre for start-ups working in the EVs space.



While some might argue that the infrastructure for rolling out EVs and translating this green goal is still not proper in the country (in the sense that there are still not enough charging stations across the country etc), I would say that EVs are mostly launched in the segment where people generally have more than one cars and they know which car is to be used when. They would certainly have different cars for city drive and long-drives. So, I don't see any major difficulty in the initial days. Infrastructure can be developed simultaneously with the development of this particular market segment.

Simultaneously with this green movement, Volvo Car in India has also drawn up plans to do away with its diesel variants of vehicle, Quite like some other auto majors, we have also set out on a journey from diesel to petrol. Over the next 4/5/6 years, all our vehicles will be either petrol or fully electric variants. Our sedans like S60, S90 and SUVs will only have their petrol versions.

Volvo Car in India is also gearing up to another palpable trend in the Indian auto market or shift in car owners' preferences of SUVs over sedan. This shift in consumers' preferences can be attributed to car owners' orientation towards safety, security and gradual drop of interest rates and availability of various lucrative financing options.

(As told to Ritwik Mukherjee)

A mechanical engineering graduate from Punjab Engineering College, Rajeev Chauhan has nearly three decades of rich experience in Indian automobile sector, working with various leading auto companies in various capacities. Following a successful stint with Honda Cars India Ltd, he is currently part of Management Team at Volvo Cars in India, leading the company on Retail Network, Product and Customer experience solutions, in particular.

ENSURING 24X7 POWER TO ALL SUSTAINABLE D

QUALITY WITH DEVELOPMENT

Powering Economic & Industrial Development

India’s power sector is one of the most diversified in the world. In India, sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste. Electricity demand in the country has increased rapidly over the years and is expected to rise further in the years to come. In order to meet the increasing demand for electricity in the country, massive addition to the installed generating capacity is required.

India ranked sixth in the list of countries to make significant investments in clean energy at $90 billion. India is the only country among the G20 nations that is on track to achieve the targets under the Paris Agreement.

The Centre's focus on attaining 'Power for all' has accelerated capacity addition in the country. At the same time, the competitive intensity is increasing at both the market and supply sides (fuel, logistics, finances, and manpower).

By 2022, solar energy is estimated to contribute 114 GW, followed by 67 GW from wind power and 15 GW from biomass and hydropower. The target for renewable energy has been increased to 227 GW by 2022.

In FY22, so far, the total thermal installed capacity in the country stood at 234.72 GW. Installed capacity of renewable, hydro and nuclear energy totalled 95.65 GW, 46.21 GW and 6.78 GW, respectively.

With the power sector having been identified as a key sector of focus to promote sustained industrial growth, the Centre has taken a number of initiatives:

- Exim Bank has extended a line of credit worth $100 million to the Sri Lankan government for the purpose of funding projects in the solar energy sector and assure that the country's 70 per cent power requirements are met by renewable energy sources by 2030.
- With a draft National Electricity Policy (NEP) 2021 in place, the MoP has created an expert committee including members from state governments, the Ministry of New and Renewable Energy (MNRE), NITI Aayog and the Central Electricity Authority (CEA).
- By 2029-30 the share of renewable energy generation would increase from 18 per cent to 44 per cent, while that of thermal is expected to reduce from 78 per cent to 52 per cent.
- Energy Efficiency Services Limited (EESL), a joint venture of PSUs under the Ministry of Power and Department of New & Renewable Energy (DNRE), Goa, signed a MoU to discuss roll-out of India's first Convergence Project in the state.
- Plans to set up an inter-ministerial committee under NITI Aayog to forefront research and study on energy modelling. This, along with a steering committee, will serve the India Energy Modelling Forum (IEMF) jointly launched by NITI Aayog and the United States Agency for International Development (USAID)
- The Centre has allocated Rs. 111 lakh crore ($ .4 trillion) under the National Infrastructure Pipeline for FY 2019-25. The energy sector is likely to account for 24 per cent capital expenditure over FY 2019-25.
- Government plans to establish renewable energy capacity of 500 GW by 2030.
- Launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana-Saubhagya.
- A draft amendment to Electricity Act, 2003 was introduced, deliberating on separation of content & carriage, direct benefit transfer of subsidy, 24x7 power supply as an obligation, penalisation on violation of PPA, setting up smart meter and prepaid peters along with regulations related to the same.
- Launched Ujwal Discoms Assurance Yojana (UDAY) to encourage operational and financial turnaround of State-owned Power Distribution Companies (DISCOMS) with an aim to reduce Aggregate Technical & Commercial (AT&C) losses to 15 per cent by FY19.

The Centre has released its roadmap to achieve 227 GW capacity in renewable energy (including 114 GW of solar power and 67 GW of wind power) by 2022. The government is also preparing a 'rent a roof' policy for supporting its target of generating 40 gigawatts (GW) of power through solar rooftop projects by 2022. Coal-based power-generation capacity in India, which currently stands at 199.5 GW, is expected to witness total installed capacity addition of 47.86 GW by 2022.

R N Sen

Former Chairman
DVC & WBERC

Prime Minister Modi announced Green Hydrogen Mission on August 15 from Lalqila to give the required thrust in this area

India's deep climate change obligations under Conference of Parties (COP) 25. India have taken 30% cut in next ten years as part of Nationally Determined Contribution (NDC) and for a growing economy like India this is very tough. Only way is by a twin track of highly efficient (cradle to grave) technologies (low carbon emission) and increasing deployment of renewable energy. Hydrogen is the answer to both. India's energy security lies in maximization of its available fossil (coal) source and high value conversion of the dispersed biomass (agricultural and forestry residue). Again, hydrogen is the way towards achieving the same. A CO2 capture (CCT) and its utilization are an integral part of zero emission hydrogen plants.

International Energy Agency (IEA) released India Energy Outlook 2021 on 9th February 2021 has predicted India will take over EU and will become the 3rd biggest energy consumer by 2030 after China and USA and in RE will be the 2nd largest after China. India is expected to reach net -zero emission by mid 2060s. CAGR of electricity demand will be 5% up to 2040 which will be double of the total energy demand. Supply growth by solar and wind and demand growth from A/C, Transport, Cooking, etc.

India's energy demands will grow from current 350 MTPA (Million Tons of Oil Equivalent per Annum) to 500 MTPA in the next decade. This includes electricity + industrial + commercial + transport + household energy needs put under one number as MTPA.

India has set target of 450 GW of renewable energy by end of this decade and, 100 million tons of coal gasification. This when translated would mean 30 million tons of hydrogen via renewable energy and 10 million tons of hydrogen from coal gasification. And if we add another 50 million tons of biomass to hydrogen, that will add another 3 million tons of hydrogen. So, by end of this decade, we can generate 43 million tons of hydrogen.

This means approximately 34% of fossil energy can be shifted to hydrogen energy by end of this decade and on a carbon basis this would bring down the carbon intensity between 25-30%. Possible to develop cluster of distributed hydrogen plants for every 10 sq. km using agricultural residue and Municipal Solid Waste (MSW).

Agricultural prosperity key to rural economy. Combined Heat and Power (CHP) systems using hydrogen fuel cells at 75% efficiency is the best way demand side energy can be met both industrial scale and commercial + residential scaleE mobility can be realized using hybrid concept with fuel cells in Combined Heat and Power (CHP) mode to meet the Heating Ventilation and Airconditioning (HVAC) needs of the mobility. Thermal energy needs are best met with hydrogen-based boilers which can deliver efficiency near 100% on Lower Heating Value (LHV) basis

Our NDCs target at reduction of emissions intensity by 33%-35% by 2030 over 2005, achieving a 175 GW renewable energy capacity by 2022 and 450 GW by 2030 resulting share of non-fossil fuel-based capacity in the electricity mix is aimed at above 40% by 2030. This is also expected to mainstream emerging energy technologies and provide consumer energy choices.

BBC news have reported on 17^{th} August 2021, US lab stands on threshold of key nuclear fusion goal. Also, China has started developing modular mini nuclear plants to ensure 24X7 clean power.

Energy efficiency, which entails using less energy for the same service, is an important element in energy policy. For example, the recent campaign by the government to replace regular bulbs by LED bulbs has the potential to reduce energy load by 20 GW and save nearly 100 billion kWh worth of energy each year after replacement of all incandescent bulbs. The urgency of action on the enhancement of energy efficiency stems from the fact that our CO2 emissions and energy imports could go up substantially in the 'do-nothing' scenario. Improved energy efficiency alone can reduce our energy demand over BAU (business as usual) scenario by 17% in 2040. These projections by India Energy Security Scenario (IESS) 2047 also indicate that demand reduction through energy efficiency could be further supplemented by actions on domestic supply.

India's energy demands will grow from current 350 MTPA to 500 MTPA in the next decade. This includes electricity + industrial + commercial + transport + household energy needs put under one number as MTPA

The NEP proposes actions to meet the objectives in such a way that India's economy is 'energy ready' in the year 2040. Technological advancements and global energy markets are rapidly changing. Our own bold economic reforms, which are likely to lead to robust economic growth at double-digit annual rates over the next decade, promise to transform the way energy is consumed and supplied. All four major energy-consuming sectors—industry, household, transport, and agriculture—will undergo dramatic changes in the coming decades. On the energy front, they should be able to internalise volatility in energy prices, which is often the case when markets get integrated globally. Urbanization is expected to go up to 47%, while current share of manufacturing in the GDP will double to 30% by the year 2040. The population of India is predicted to go up to 1.6 billion by 2040. All these developments will result in the energy demand increasing by 2.7-3.2 times between years 2012 and 2040. The NEP must deliver the energy demanded at all times to support the desired economic outcomes.

In the ambitious scenario, energy consumption ends up being 17% below that in the baseline case illustrating the power of energy conservation and efficiency. In this scenario, the share of electricity in the final energy demand at 26% is also significantly higher than the 23% share in the baseline case suggesting an environmentally cleaner outcome at the point of consumption. Per-capita annual electricity consumption increased from 1122kWh at the end of 12th plan (31.03.2017) to 1181kWh at the end of annual plan (31.03.2019) and likely to increase to 2911-2924 kWh in 2040. At the above levels, our economy would still be much more efficient than many developed countries while meeting satisfactory levels of energy demand of our citizens

All India Peak Demand and Energy requirement forecast Generation expansion planning studies have been carried out based on the Electricity demand assessed by the 19th Electric Power Survey (EPS) Report. The estimated peak demand (MW) and Energy requirement (BU) in the years 2021-22 and

Table Projected Electricity Demand (as per 19th EPS)

	2021-22	2026-27
Requirement (BU)	1566	2047
Peak Demand (GW)	225.751	298.774

2026-27 are given in Table below.

The per capita power consumption of India, China, Brazil, and world are 1181 (Y-2018) ,4475 (Y-2017),2516 (Y-2014) and 2674 (Y-2014) units, respectively. Which means India needs to increase its power consumption more than double at least to be near Brazil/world average and around four times to be at per with China.

In the Distribution Sector, Government of India has been assisting the States / Distribution Companies (DISCOMs) through various schemes since 2014, namely UDAY, Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY); Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA); Integrated Power Development Scheme (IPDS) and now on 20th July 2021 MOP has announced "Revamped Distribution sector A Reforms-based and Results-linked Scheme" of Rs 3,03,718 crore out of which Rs 97,631 crore will be budgetary support. The Distribution system has been strengthened under DDUGJY and IPDS in rural and urban areas respectively. As a result of the implementation of these schemes, India has achieved universal electricity access by connecting ~28 million households in 18 months under Saubhagya. This was the largest expansion of access anywhere in the world in such a time frame.

The year 2021 started with Electricity (Rights of Consumers) Rules, 2020 on 1st January 2021 that time it was visible that this year is set for major power sector reform. With the assuming the responsibility of Secretory Power Mr Alok Kumar, one of the architects of Electricity Act 2003, has initiated Electricity Bill (Amendment), 2021 to amend the Electricity Act focusing delicencing of distribution.

Let us deliberate briefly on this new initiative.

This is the much-needed push for the distribution sector for bringing it out from perennial loss-making position and ensuring 24X7 quality power at affordable rate to end consumers through market driven competition. This will provide more choices to consumers and bring higher efficiency in the sector; the Bill seeks to de-license the power distribution business and allow other operators to run distribution companies without any restriction. The existing distribution operator will have to "provide non-

discriminatory access to their distribution system to all operators registered with the Regulator within the same area of supply", in return for wheeling charges as determined by state power regulators. The Bill also proposes state governments to create a 'universal service obligation fund' where "any surplus with any operator on account of cross subsidy or cross subsidy surcharge or additional surcharge shall be deposited". However, the new structure is in similar line with existing provision of parallel licensee mainly with the condition for sharing both existing and new network with the other operators against wheeling charges as determined by the regulator. The major challenge will be accounting and sharing of AT&C losses between them, quality of service to the consumers of rival operators, trouble shooting, revival of distributionnetwork in case of natural disaster like Ampan in the areas of rival operators to name a few.

All the other sectors like telecommunication, postal, mobile, internet, etc are delivered to consumers through multiple, competing service providers. They are free from barriers to entry and do not suffer from service delivery weaknesses like monopoly carriers. In the case of power, due to its delivery through a physical network, dependence on monopoly carrier is must for reaching to the end consumers from the generating stations. The exception is in the case of proconsumers - where the consumer is producer also and electricity flows in multiple directions. For obtaining the full benefit of delicencing of distribution sector, we are of the view that it is essential to remove/minimize the monopoly ownership of the carrier and they should not sale and purchase of electricity in line with other carriers like central/state transmission company. In existing form, it will be in line with the separation of carriage and content with the freedom for building up additional carriage by the new supplier if they so desire. In case of new areas, it will be the most preferred option whereas in the existing areas it will be driven by commercial reason. The existing network infrastructure which are currently assigned to the Distribution Licensee we propose that it may be split into High Tension Distribution (HTD) asset Upstream of Distribution Transformer including sub stations and LT Distribution (LTD) Downstream

of Distribution Transformer 400 volts and below including DT. The former shall be referred to as "sub-transmission" infrastructure and the latter as "last mile" infrastructure. The idea is that all HTD network assets shall be transferred to the State Transmission Company. With the advancement of technology delicencing of distribution is likely to initiate competition and open more opportunities for developing microgrids and projects on peer- to-peer transfer of energy with the breakthrough technology for 24X7 better quality and at optimum cost Majority of the staff of the discom shall be transferred to the state transmission company payroll and shall be involved in operating the HTD along with other Transco assets as they have been used to. Now we come to the LTD assets, which are downstream from the distribution transformer and include wires up to the electricity meter on customer premises. The existing distribution licensee will continue to operate.

The regulator may notify segments of distribution areas through expression of interest. After incorporating required changes, the regulator may offer distribution areas for competition through multiple operators, the operator who intend to supply power to any specific area may approach the regulator for permission on meeting the minimum qualifying requirement as notified by the regulator. There may be more than two operators for any area however regulator may place a condition for permitting each urban area against one or more rural areas. Regulator will specify voltage wise maximum tariff that can be charged to any consumer over a five-year trajectory, every year there will be a rural maximum tariff and an urban maximum tariff given by the regulator. Apart from rural and urban there will be no other consumer category in the same voltage which will be specified by the regulator. It is up to the private operator to charge any tariff to any party, provided it does not exceed the specified maximum tariff for the given year, while respecting rural and urban. Every operator must apply for equal number of rural and urban DTs.

The LTD assets may be bifurcated into assets developed by the cost of consumers (Consumer Asset) and assets created by the operating licensee. In case it is decided to make the consumer assets available to the new operating Company for operation and maintenance then the regulator may appoint administrator for asset management, allocation, supervision, accounting, etc for trouble free operation and change over from operator to operator. To make the delicensing more competitive with consumer focus a separate company like EESL may be considered for owning and leasing the smart meters which may not be changed with the change of operator and all new operators may opt for this facility of leasing. Consumers will be relaxed even with the change of operator as meter does not change.

The Ministry of Power (MoP) vide their OM dated 20th July 2021 has issued detailed guidelines for reform-based result-linked power distribution program over the next five years. The program aims to improve the quality and the reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The plan is to reduce the aggregate technical and commercial (AT&C) losses across India to 12-15% and eliminate the gap between the average cost of supply and the aggregate revenue requirement by 2024-25. According to the MoP, the outlay for the program is ?3.03 trillion, with budgetary support of ?976.31 billion from the Government of India. REC Limited and Power Finance Corporation Limited will be the nodal agencies responsible for implementing the program across the country. To avail benefits under the program, states, and their distribution companies (DISCOMs) must sign a tripartite agreement with the central government.

The above requires large scale reforms in Distribution Sector and schemes that would enable the DISCOMs to reduce losses to make them financially sustainable and operationally efficient. It is with this aim and the Government of India’s commitment for providing 24x7 uninterrupted, quality, reliable and affordable power supply, that the Revamped Reforms Based and Results Linked

Distribution Sector Scheme has been formulated by Ministry of Power for supporting DISCOMs to undertake reforms and improve performance in a time bound manner. The Revamped Reforms-based and Results-linked, Distribution Sector. Scheme seeks to improve the operational efficiencies and financial sustainability, by providing financial assistance to DISCOMs for strengthening of supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks in reforms. The objectives of the scheme are to: Improve the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector. Reduce the AT&C losses to pan-India levels of 12-15% by 2024-25. Reduce ACS-ARR gap to zero by 2024-25.

Reference:

1) Draft National Energy Policy Version as on 27.06.2017 by Niti Aayog.
2) International Energy Agency (IEA) released India Energy Outlook 2021
3) Ministry of Power OMs from time to time.
4) 19th Electric Power Survey (EPS) Report.
5) National Electricity Plan JANUARY 2018 CEA

Rabindra Nath Sen, former chairman, at West Bengal Electricity Regulatory Commission (WBERC), is a power industry expert and has worked with some of the sector's biggest PSUs including the Damodar Valley Corporation (DVC) and NTPC Limited. He is currently the Editor of Energy Konnect. In the past, Sen has held the position of chairman, DECMCL (a joint venture of a coal mining company); CEO, NTPC-SAIL; managing director (MD), NTPC-Alstom; and executive director (operation services), NTPC, among others. Some of the key assignments he undertook during these stints were the implementation of e-payment for coal freight for the railways at the Badarpur Thermal Power Station and transforming it from a loss-making to a high-performance profit-making unit, which was ultimately taken over by NTPC (during his tenure as general manager); execution of renovation and modernisation works at the Tanda thermal project ahead of schedule (as MD of NTPC-Alstom); and turnaround of NTPC-SAIL's new Bhilai unit to a high-performance profit-making plant.

Dilip Chenoy

Secretary General
FICCI

India 2030: On the Runway, Before Take-off

As we celebrate three decades of the epochal 1991 reforms this year and get ready to mark seventy five years of India's independence next year, a look into the future indeed shows a very bright road ahead. Economic reforms and policies have led to an increase in confidence among stakeholders. We are firmly on the course of an inclusive and a sustainable growth path.

The scale and pace of reforms, including in difficult areas, has been very encouraging. The implementation of the goods and services tax, income tax reforms, a comprehensive and new foreign direct investment policy, the remarkable effort seen with regard to ease of doing business and the overall emphasis on assuring ease of living are a few obvious case in point. On the economic front, there has been a gradual return to normalcy post the devastating second wave. Some momentum is being reflected in the lead indicators. Signs of pickup are on the horizon and are encouraging. Even though considerable uncertainty remains, we will have to learn to adjust to this new normal.

These difficult times have also given us a fresh lease of confidence about our capabilities. Innovations took over and science evolved to think of possible cures. Medical infrastructure was created in no time and supplies of PPEs, medical oxygen and essential medicines were ramped up. We have come a long way from being deficient in these essentials to now exporting them to the countries which are in short supply.

Innovation and Research & Development have become the foundation for our growth. Cutting-edge R&D is crucial for our products to remain globally competitive. India was ranked among top 50 innovative countries on the Global Innovation Index 2020. The country endeavours to strengthen its position as an innovation hub. The recent success achieved in developing Covid-19 vaccine is a great testimony. The vaccination drive that we have been able to embark on is truly commendable.

Two crucial primary sectors, healthcare and education, are growing rapidly. While the Indian healthcare sector is expected to reach US$ 372 billion by 2022, the higher education sector is expected to grow to US$ 35 billion by 2025. Start-ups in the country are now booming. In fact, some of them have also had great success with their IPOs. Today, India is the third-largest start-up ecosystem in the world with about 50,000 start-ups recognised by the government. The country is also the third largest unicorn community. 12 new unicorns were added in 2020 alone – the highest ever added in a single calendar year. In the manufacturing sector, the government has announced several PLI schemes, which has given a major boost. The sectors covered under the PLI schemes are strategic, technology and employment intensive. These schemes have not only strengthened these sectors in the domestic market but have also helped us to become an export hubIndia has also made steady progress in scaling up its infrastructure, which is visible in faster expansion of road network, rising renewable energy capacity, introduction of metro train projects in various cities and decreasing power deficit. Some of the largest projects globally in infrastructure are being conceived and implemented in India. The new National Infrastructure Pipeline, which entails an investment of over US$ 1 trillion between now and 2025, presents an ambitious plan to bridge the gaps in the sector.

The present government has been able to bring back the focus on disinvestment once again. Several steps towards revival and restructuring of the behemoth enterprises have been undertaken, including setting of higher disinvestment targets, announcements to undertake strategic disinvestment, and listing of CPSEs on stock exchanges.

The crisis has put us at cross-roads but has also opened a plethora of new opportunities. We need to continue building on our competitiveness by taking forward the reform agenda. Going ahead, implementation of this agenda will be the key to success. The thrust and momentum are building up and all indications point to a take-off.

■ *Dilip Chenoy is currently Secretary General of the Federation of Indian Chambers of Commerce and Industry (FICCI), the largest and oldest apex business organisation in India, and a potent voice for policy change, representing over 2,50,000 members covering all the states. Previously he served as MD & CEO of the National Skill Development Corporation (NSDC) that fosters private sector investment and initiatives in training and skill development. He has also worked in several key industry organizations, including SIAM as its Director General. He was a member of the Harvard Business School project under Professor Michael Porter that worked on the competitiveness of Indian industry. he advices startups in the digital, education, skills and livelihood space. A fellow of the World Academy of Productivity Science, he was awarded the Indian Achievers Award, The Game Changer Award and the Rashtriya Media Ratan Award.*

India Inc. paces up digitisation drive post pandemic

The pandemic has significantly altered how businesses are being conducted in India. Although the overall impact of the pandemic is varied, there is no doubt that business organisations in India are becoming more dynamic, and competitive. Sectors like manufacturing of food and kindred products, computer related services, educational services, etc. have recorded a healthy growth in business registrations. However, there are sectors such as transportation services, repair services, restaurants, bars, etc. that have contracted in business registrations thanks to social distancing measures.

There is no doubt whatsoever that while the pandemic changed the business landscape dramatically, it also presented itself as an opportunity, and many businesses capitalised on the evolving trends, leading to an increase in business registrations. As many as 195,880 new businesses got registered in FY21, a record high. And most of these newly registered businesses are concentrated in sectors that incidentally witnessed a pandemic-induced spike in demand and 96 per cent of the newly registered business had a paid-up capital of up to ₹ 1 million. As newer businesses keep entering the market, survival becomes a key challenge for the existing ones. They have to adapt to the upcoming trends including digital adoption to stay relevant or risk going out of business.

In another significant trend, the agriculture sector in the country registered the highest growth in new business registrations at 103 per cent in FY21. The sector recorded 12,368 registrations in FY21. The number was 6,107 in FY20. The manufacturing sector, on its parts, recorded the second highest growth (50 per cent) in new business registrations in FY21.

Consider few statistics in this context. The PMI Manufacturing index, after showing a sharp contraction in June at 48.1, went up to a 3-month high of 55.3 in July. The Services PMI, however, continued to remain in the contractionary mode, although it improved from 41.2 in June to 45.4 in July. This trend amply indicated that the adverse impact of the second wave of the pandemic on economic activities is on a downslide and would be confined to the first quarter, unless the pandemic resurfaces in the form of a third wave. It is expected that if the virus is contained, there would be continued recovery to reach the 2019-20 levels of GDP by the end of this fiscal or at least by the first quarter of 2022-23 (Q1FY23). Besides, exports have shown a spectacular increase of 48 per cent (y-o-y) in July to reach $35 billion. While this is partly due to the base effect, the main reason for the rise is increased external demand arising from global recovery. International commodity prices, particularly crude oil prices, seem to be stabilising, and with the prospects of a bountiful harvest due to the revival of the monsoon, food prices too are likely to cool down in the months to come.

The World Bank has projected a much lower rate of 7.5 per cent growth during FY22, but IMF projections are similar to the MPC's, at 9.5 per cent. India's Chief Economic Adviser has maintained that the economy will grow at 10.5 per cent this fiscal, 6.5 per cent to 7 per cent in 2022-23 and 8 per cent thereafter. Most investment bankers and rating agencies have lowered their GDP estimates due to the second wave to 9-9.5 per cent. Brickwork Ratings maintained its projection made in July at 9 per cent for the whole year and 14 per cent for the Q1FY22.

One has to keep in mind that acceleration in growth requires all engines of growth to kick in, predominantly domestic consumption, private and government investment, and exports. Consumption demand is expected to pick up as lockdown restrictions are eased. Deleveraging by corporates has eased their debt burden, but it remains to be seen when the investment cycle will revive.

Facing uncertainty has never been easy, but if one goes by history and experiences, it is only during these challenging times, a country or an economy needs to build and prepare for the next phase of growth. There can actually be no better time. An economy has to outmaneuver uncertainty in both the short- and long-term through ‘digital disruption’, which are not always ready.

And that’s exactly what the pandemic has done. Covid-19 has pushed companies over the technology tipping point and transformed business, possibly forever. Companies have paced up the digitisation of their customer and supply-chain interactions and of their internal operations by three to four years. And the share of digital or digitally enabled products in their portfolios has accelerated by a shocking seven years. Companies expect most of these changes to be long lasting and are already making the kinds of investments that all but ensure they will stick. Significantly, most of the business organisations recognise technology’s strategic importance as a critical component of the business, not just a source of cost efficiencies. It is pertinent to mention here that it is not from the organisations’ side only, but during the pandemic, even consumers have switched dramatically towards online channels, and companies and industries have just responded in turn. .

Across business verticals, the largest leap in digitisation is the share of offerings that are digital in nature.

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