The Indian economy stands at a significant threshold at the end of the decade. Economists agree that many of the reforms implemented after the 1991 crisis are now losing momentum, while new challenges are emerging due to the uncertain state of globalization and structural weaknesses in the economy. Along with this, there has been a slow transition into a modern welfare state since the beginning of the twenty-first century. CPR faculty identifies some of the most crucial threats facing the economy and challenges facing the welfare state and offers a suite of solutions to stave them off.
Can India Achieve Sustained Fast Growth? The Two Faces of Indian Capitalism

In the last few years, India seemed to have achieved the symbolic goal of growing faster than China (at least according to official statistics) and was frequently hailed as the fastest-growing large economy in the world (Figure 1). The Spring 2019 IMF World Economic Outlook forecast continued optimistic prospects, with a slight acceleration in growth to 7.5% by 2020, even as China and the advanced economies are projected to decelerate.

Is India’s fast growth sustainable? Recent economic data indicates declining consumption, anaemic private investment, diminished corporate performance, agricultural distress and slowing GDP growth. (Questions have also been raised over the statistical robustness of recent growth.) Rathin Roy, of the Prime Minister’s Economic Advisory Council, has raised the issue of structural problems leading to a ‘middle income trap’, linked to inequality and associated failures in productive employment growth.¹ The 2018 Economic Survey also referred to the challenges of productive transformation, human capital and agricultural distress.²
India’s economy holds great potential, but there is a big risk that this will not be translated into reality. Relative to its income level, India has both a highly diversified economy and well-developed organizational capabilities in the business sector. These presage multiple opportunities to upgrade, reinforcing classic forces for ‘convergence’ as the country catches up with those at the technological frontier. These forces are complemented by the (potential) demographic dividend as young cohorts enter the labour force.

However, on current trends, India is en route to the Latin American path, in which episodes of fast growth tend to stall in the long run. Signs of Latin Americanization lie in the consolidation of what has been referred to as ‘oligarchic capitalism’, with its drawbacks of widespread informalization, rising extremes of inequality, and a corporate-financial nexus of bad assets that risks growth and macroeconomic stability.

Our interpretation of a middle income trap in this paper is an essentially political-institutional account, embedded in the nature of the relationship between the state and business and between the state and society. Indian capitalism has two faces: dynamic, competitive and productivity-oriented; and connected, rent-extracting and corrosive politics. Some sectors and companies are more ‘rent-extracting’ than others. But many face both ways. Large Indian companies – such as the Reliance and Adani groups – seem to have both high productivity and high levels of influence. Then, beyond the corporate business sector, there are immense numbers of self-employed, small and medium-sized firms in the informal sector.

These features resonate vividly with characteristics of Latin America capitalism. This can be seen as having three types of enterprise: connected plutocrats with major influence over the state system (such as Carlos Slim in Mexico, and other Mexican billionaires), the rest of the business sector (that struggles with regulation, poor infrastructure and weak skill development), and a very large number of small-scale/informal enterprises (with weak access to formal credit, legal recourse, infrastructure and modern productive support systems). Countries such as Mexico and Brazil had their episodes of fast growth and then got stuck in a mix of low productivity, inefficient social policy, and periodic macroeconomic crisis.

As in Mexico or Brazil, capitalism in India operates in a system that is characterized by both formal rules and less formal deals. ‘Deals’ refer to both broad understandings and particularistic relations between the state and business. But ‘rules’ also matter. Rules can be in tension with deals when the latter aim to subvert the former, but hybrid arrangements — such as when rules are applied in the implementation of deals — are
common. Carlos Slim got his big break through the (legal) privatization of Mexico’s telecom company by the then president, Carlos Salinas. Most of Mexico’s other billionaires were also launched then. And this was when Mexico was already significantly richer than India today.

Rules matter when implemented well; they play the essential role of providing credible threats and penalties for unlawful deal-making, in addition to dealing with the array of concerns over standards, safety and protection. But an over-regulated, rule-based economy can crowd out investment and stymie growth. India’s economy has evolved from being a case study in over-regulation to, functionally, a hybrid of rules and deals. Of the business-politics nexus, it can be said that ‘the relationship can no longer be understood as either developmental or crony capitalist: it is both’. [3]

India’s major growth acceleration occurred in the 2000s. It involved a striking growth in aggregate — and, in particular, private — investment and exports. Both faces of capitalism were manifest. There were significant strides in business capabilities and capitalist institutions. However, even as GDP skyrocketed, India’s growth story was dogged by concerns over high-level corruption and rising inequality. A series of scams over natural resource allocation helped consolidate public anger around entrenched politician-business links, spurring a national anti-corruption movement. An elite coterie of Indians was seen to be pulling the strings of politics and business, and public sentiment rallied around these societal shifts.

While household surveys suggest inequalities are still much lower in India compared to Latin America, there is evidence of continued concentration of wealth and incomes at the top of the distribution. Combining tax data with household survey data, Chancel and Piketty estimate a large increase in the income share of the top 1%, matched by a corresponding decline in the share of the bottom half of the population. [4] By this measure, the difference in income growth between the top and the rest of the distribution was even greater than in China and the US — both notorious for their inequality rise.

A more specific manifestation of growing inequality is the rise in wealth of India’s billionaires, almost all of which is fuelled by business success (Figure 2).

**Figure 2:** The wealth of India’s top ten billionaires rose rapidly between 2014 and 2018

![Total Net Worth](source: Forbes.com)
A crucial heritage of the period of heady growth has been a dramatic rise in reported non-performing assets (NPAs) in the banking system. NPAs are products, at least in part, of past state-business links, especially between public sector banks and influential businesses. NPAs were over 14% of gross advances in 2018 for public sector banks, with a still-high 8% for net NPAs (net NPAs are net of provisions).

This rise in NPAs, alongside recent setbacks to India’s shadow banking industry, is a crucial constraint to the flow of credit and private investment, which has stalled in recent years. Gross capital formation as a percentage of GDP is hovering around 31%, its lowest since 2003 (Figure 3). Reported new investment proposals have also been falling steadily since 2015.

Figure 3: The rise and fall of India’s investment rate

Gross Capital Formation (% of GDP)

Source: World Bank information base

Resolving the NPA crisis, an increasingly important policy priority in recent years, is necessary but not sufficient. The informal sector continues to dominate the economy, with over 80% of non-agricultural workers employed by the informal sector and Micro, Small, and Medium Enterprises (MSMEs) contributing over a third of GDP. Yet the IFC estimates that formal credit channels account for only 16% of debt financing in the MSME sector.

The Urgency of Action

Why is a focus on the functioning of Indian capitalism so important for the incoming administration?

For every administration that fails to put in place the institutional and policy preconditions for dynamic, inclusive development, there is a permanent loss in productive and human potential. Failure to act now means another cohort of India’s youth being substantially ill equipped to participate in productive work, fostering further increases in inequality.

Even more critical is the risk of further entrenchment of business elites, with respect to their links to both the state and minority shareholders, creating an oligarchic capitalism that heightens resistance to future institutional transitions to dynamic, competitive capitalism.
Furthermore, the global economic context is much more anaemic than the ‘sweet spot’ of the early 2000s. Long-term growth is slowing throughout Europe and the US. Even China—the main autonomous source of growth in the global economy—is in the midst of both a long-term slowdown as its economy matures, and concerns over financial fragility.

Finally, global technological change will increase incentives for increased automation in the economy. This is likely to have profound effects on the work opportunities for India’s labour force, with as yet ill-understood consequences.

These developments will have major distributional dimensions that threaten political stability. The interaction between a consolidation of oligarchic capitalism and the less favourable global context is why the risk of a Latin American style middle income trap is so salient.

A Policy Agenda

Whether India realizes its growth potential or gets stuck in a middle income trap depends on both policy choice and institutional design. Avoiding the Latin American path of oligarchic capitalism and widespread informality involves building the basis for a dynamic, inclusive and competitive capitalism. This requires, in the resonant phrase of Raghuram Rajan and Luigi Zingales, ‘saving capitalism from the capitalists’. Rebuilding state-business relations in an open, competitive rules-based fashion is essential. We outline six complementary areas. The complementarity is critical, as is an overarching theme that without institutional deepening with respect to accountability, autonomy and transparency, these policies will be subverted.

(1) Resolution of NPAs: Critical to real credit flows, investor sentiment and the broader macroeconomic health of the system is the effective resolution of NPAs. While the Insolvency and Bankruptcy Code (IBC) has set out a sound framework to resolve NPAs and shift power from promoters to creditors, translating the promise of the IBC into practice remains a challenge. RBI data available until January 2019 indicates that resolution has been approved in 66 cases so far, unlocking INR 800 billion for creditors. But the pace of resolution lags the Act’s guidelines—egregiously, in some cases. In addition, continued vigilance is required to ensure that tight eligibility guidelines for potential buyers do not translate to increased corporate concentration in key sectors. Underpinning the broader NPA challenge is the need to sustain the autonomy of the central bank, whose independence must be protected and unchallenged by the executive.

(2) Competition: Dynamism and innovation require competition. Many sectors are already concentrated, and there are risks of further concentration—in the consolidation following resolution, and in the future via network effects in platform-based sectors. This is vividly illustrated by the debates in Europe and the US over platform-based companies. This requires an empowered, autonomous competition authority, and also continued innovations in regulation in the wake of technological change. Mexico actually created a strong, autonomous competition authority, with a dynamic head who could not be removed by the executive. But its action on anti-competitive behaviour (including of billionaire-linked companies) got stuck in the judiciary—with lessons for India. Infrastructure and natural resources are a special case: while auctions are an important step, implementation is again crucial. The most notorious Latin America-wide corruption scandal of the recent past, involving the Brazilian conglomerate Odebrecht, involved a series of contracts won in competitive auctions for PPPs. The Achilles heel was in the renegotiation phase, when concessionaires often extract big advantages. An alternative design is to make renegotiation also subject to credible, third-party scrutiny and decision-making with transparent processes.
(3) **Better rules:** Shifting the balance to rules-based interactions requires better rules. There has been a plausible focus on the ‘Doing Business’ indicators and healthy interstate competition on the rankings. However, international evidence finds that these notional measures are often completely unrelated to actual experience, which depends on implementation. The GST reform should help in the long term, but the costs of participation often still seem to outweigh the benefits, especially for informal firms. Of specific importance are the complex areas of land acquisition and labour policy. While there has been a tendency amongst economists to fetishize labour flexibilization as the missing ingredient for labour-intensive industrialization (it is no panacea), the goal has to be delinking social protection from the labour contract if inefficient informalization is to be discouraged; this is a specific bridge to comprehensive social policies.

(4) **Facilitating implementation:** The bureaucracy has in the past been in the production line of converting politician-business deals into the prevailing rules. With the (desirable) anti-corruption motif, there is widespread reference to the ‘chilling’ effects on approval, from both business and bureaucrats. Some reduction in the excessive legal risks for bureaucrats have come with changes in the 13(1)(d) regulation in 2018—which previously criminalized bureaucrats for any loss to the government, even if there was no intent—but the effects are still unclear. Additional action, such as new third-party processes for contract renegotiation just referred to, can help. This is an area where concerted exploration of implementation design is important.

(5) **Inclusion:** Deepening institutional support for small-scale and informal enterprises will require a whole suite of policy changes across sectors and along the value chain. Providing more robust support to MSMEs, including those in rural areas, will require enhanced infrastructure provision (along the lines of the Pradhan Mantri Gram Sadak Yojana), a deepening of financial inclusion and access to credit, a data-driven reorientation of NRRLM and urban skilling programmes, and finally, a revamping of CSR towards leveraging corporate comparative advantage in favour of supporting business enterprises instead of government programmes.

(6) **Industrial policy:** Finally, there is a potentially important role for sector-specific industrial policy. In this regard, India has both successes and failures. The auto industry has benefited from a series of state actions that led to a productive sector strongly integrated with global value chains, notably in Tamil Nadu. Sector-specific public goods, such as on National Automotive Testing and R&D Infrastructure Project, are also examples of successes. By contrast the Special Economic Zone policy often became associated with land deals. Effective 21st century industrial strategies require both close cooperation with the business sector and a focus on sector-specific public goods (rather than a bias towards protection or tax breaks), but also sufficient autonomy from business lobbies—or especially a politician-business nexus—to avoid consolidation of inefficiency and rent-extraction. Credible sunset clauses to support are one example of an instrument.

This is only an outline of policy domains. While the complementarity between them is vital, even more important is the way in which the state behaves in their implementation. And key to this are the checks and balances that lie at the heart of the accountability mechanisms that underpin state behaviour.

These are of two complementary kinds. First, there are checks and balances within the state: fundamentally in the independence of the judiciary, but also the full array of regulatory agencies, and the incentives that they face. India has had plenty of experience of accountability institutions, notably in the long-term independence of the Election Commission and the Supreme Court. Both, however, are increasingly seen as subject to influence, with
critical actors in both taking unprecedentedly public measures to decry perceived threats to institutional autonomy and conduct.

Second, there is the pressure from civil society, whether (weakly and imperfectly) via periodic elections, or through ongoing civil society activism over state performance, via many mechanisms. This is heavily influenced by the availability of information, for which the various kinds of media play a central role. Unfortunately, the traditional media in India is largely owned by big business, and mostly supine on state business concerns.

There is room to strengthen both the mechanisms of accountability that belong with the state, and those that belong with civil society. What is needed is a genuine counterbalance in institutional and societal terms, complemented by strengthening, not weakening, of the capabilities of the state. For while India has a tradition of very high-quality individual state actors and a reputation for an overbearing state presence, a real issue is weaknesses in state functionality.

The Latin American experience shows that growth can occur for a while under conditions of oligarchic capitalism and widespread informality. India has immense economic potential, for which the business sector is crucial. However, unless there is a comprehensive agenda of policy and institutional change to create a dynamic capitalism, there is a risk of a Latin Americanization of India’s path that will consolidate a middle income trap of low productivity growth and entrenched inequality.

END NOTES

A Relook at Infrastructure

PARTHA MUKHOPADHYAY

The cost and reliability of electricity and logistics is a major drag on our manufacturing ambitions, and sewage from our cities is killing our rivers. Yet, infrastructure has fallen off the policy radar, despite the continuing challenges—evident most vividly in the financial sector’s non-performing assets. What is wrong and how can we fix it? We outline the key actions that need to be taken in the major sectors to make the sector financially viable and support our economic goals.

Electricity

Today, when our installed capacity is a multiple of our expressed demand (although the expressed demand may be less than our need), the objective of 24X7 power supply to consumers—whether industrial, residential or commercial—at efficient and competitive prices, should be within reach. What is stopping us?

Many of the challenges in power have been addressed elsewhere in this document by other colleagues, so I will be brief here. Renewable energy capacity in India has grown rapidly—as befits the progenitor of the International Solar Alliance. Installed capacity of wind, solar, small hydro (less than 25MW) biomass and other such sources have grown seven fold from 11,125MW (8% of grid capacity) in March 2008 to 77,642 MW (22% of grid) in March 2019.

The share of generation from these sources is now 9%. Yet, the share of thermal sources, primarily coal, remains at 78%—except that it now operates at an inefficient 60% plant load factor instead of 74% in 2008. We have been running to stay in place. The rising share of renewables has replaced the lack of growth in large hydro sources, an outcome which may admittedly have other environmental benefits.
Integrating the full spectrum of non-fossil fuel resources into the grid is thus more difficult than just increasing capacity of renewable sources. So, we may get to our 175 GW capacity target and yet not achieve much in terms of transforming the carbon-intensity of our electricity supply.

Gas plants, the vaunted mitigators of climate elsewhere, remain almost unutilised—running at just about one-fifth of their capacity, less than half of the levels ten years ago, largely because current tariff and access regimes make them uncompetitive and they have no fuel supply. Our troubles with domestic gas exploration—KG D-6 for example—has led to relative stasis in gas-related investment. Even as the LNG market is being increasingly delinked from oil, with recent prices in Asia dropping to multi-year lows, our terminals remain underutilised and under-connected. A world where a gas plant can import fuel, land it at a convenient terminal and transport it to its plant by paying an access charge to a network operator seems very far away.

There is one root cause: DISCOMs that do not collect money for power they sell. This one cause has many other manifestations—protective regulators who are reluctant to allow open access, tariff regimes without time-of-day prices, overgenerous feed-in mandates for renewable power, lavish cost-plus tariffs for legacy centrally owned plants with priority power purchase agreements with states, etc.

Given the complicated mess that our power sector has been in over the past many years, spanning all governments, transcending this will need a number of actions, across the generation, transmission and distribution segments. I advocate three, focused on tariffs.

First, industrial and commercial tariffs need to fall, leading, hopefully, to a spurt in jobs. They are much more than the cost of supply, ostensibly to subsidise residential and agricultural consumers. We cannot kill industries to keep DISCOMs alive. The network has the technical capacity to achieve this objective—especially for industries that receive power at higher voltages. DISCOMs have used their universal supply mandate as an excuse to prevent industries from accessing competitively priced power. Allowing DISCOMs to procure incremental power and supply them at competitive prices to paying industrial consumers is within the power of the state governments. The alternative is open access—part of our electricity legislation for several years—but limited in its application by our state electricity regulators, which is result of a short-sighted approach to protect DISCOMs.

Second, residential and agricultural tariffs can be rationalised, and in some segments, raised. In the era of direct benefit transfers and income support schemes, price subsidies have outlived their utility. The reduction in fiscal support to the DISCOM can be redirected to targeted consumers as a cash transfer, to insulate them from the effects of the rise in tariffs. A more rational tariff regime may also lead finally to complete metering (one can trace exhortations to meter all feeders back to twenty years ago), and a credible accounting of electricity consumption.

Third, we need to extensively expand time-of-day pricing. Today, those that consume low cost base-load power bear the burden of higher-price peaking (and other) power because of averaging of tariffs. This is being debated for a long time and is even used in some segments in some states. It can also make the gas plants, at a time of low LNG prices, competitive, reducing our carbon footprint.

These tariff actions will create the enabling conditions for ensuring that our grid is no longer bankrupt. There will still be much work to revitalise DISCOMs and address the hysteresis of long years of embedded political economy constraints, before they can be made viable. But, this is a better way than UDAY and the creation of a national...
distribution company, which is akin to a heart bypass, without changing unhealthy habits. At most, if necessary, the Central government can support the states in DISCOM reform by advancing bridging loans to tide over revenue shortfalls in the initial stages, if any.

There are many other areas for action. These include enabling a network that can integrate renewable power at the scale it is being envisaged; rationalising and modernising our coal plants – the capacity glut allows us to take some of them offline, temporarily, or even permanently, if necessary; streamlining our gas pipeline grid and pricing to allow gas plants to compete and provide balancing capacity for a renewable heavy grid, etc., etc. There are also many actions that need to be taken to grow an energy-related manufacturing sector. But, all of that is only possible when the final cash-generating end of the sector – distribution – is viable and healthy. It is time we took this head on.

Telecom

The telecom sector, bar one firm, seems to be struggling despite increasing use, so much so, that one wonders whether the public monopoly before telecom liberalisation will return in a different avatar. Despite rapid growth and the spread of smartphones, we are yet to ensure that a seamless network covers our country with both reliable data and voice. Why are we in this situation?

One major reason is that spectrum is mispriced. It should be virtually free in sparsely populated rural areas. Unless there is congestion, there is no reason to price it. Yet, our current spectrum pricing model makes rural spectrum as expensive as that in cities. This is because Licensed Service Areas (LSAs) are congruent with telecom circles, i.e., states, mixing areas that are both abundant and scarce in spectrum. This does not allow rural spectrum to be separated and affects spectrum availability across the LSA. Auctions are not necessarily efficient if the good being sold is incorrectly bundled. Instead, spectrum needs to be defined in much smaller geographical units (see Box).

Example of Standard Spectrum Trading Unit from Australia

The Australian Communications and Media Authority (ACMA) permits spectrum space to be traded in terms of standard Spectrum Trading Units (STU). These STUs may be visualised as a cube. Its base covers a geographic area (length and breadth), while bandwidth is measured vertically. The geographic area is uniform and defined by ACMA (5 minutes by 5 minutes of arc, approximately 9x9 km) as a cell of its spectrum map grid. The frequency bandwidth of an STU is set at 1 Hz for all spectrum licence bands. Though a single STU may not be useful, its regular shape allows it to be combined with neighbouring STUs vertically (to provide increased bandwidth) or horizontally (to cover a larger area). Such an aggregation of spectrum space allows spectrum licences to be combined and subdivided. Every spectrum licence has a specified minimum contiguous bandwidth (MCB). Although an STU is the minimum amount of spectrum that can be traded, trading may be restricted if an STU does not meet the MCB.²

If one moves to define and sell spectrum over smaller geographical units, aggregate revenue may remain the same but places with excess spectrum may get more service providers. But, even if it falls, one must question whether the rationale for spectrum allocation is to raise fiscal resources or whether it is to expand connectivity across the country.

Another reason is that telecom services may be priced below economic cost, an issue for the sector regulator and Competition Commission of India to examine. If even the growing firm is sustained more by infusions outside the sector than its own surplus, then, as 5G becomes the global standard, we may find that Indian telecom sector is too under-resourced to adopt the new technology. This would not be a good outcome. Cheap prices now is too high a price to pay for outdated technology later.

Finally, our Universal Service Obligation Fund was supposed to bring data to our rural communities and transform their access to education and health. Yet, instead of schoolchildren learning from high bandwidth digital content, they are addicted to low bandwidth social media separating one from the other.

**Logistics**

Twenty years ago, the government levied a rupee of cess on petrol and diesel, to fund national highways, rural roads and, lest one forget, rail-over bridges. The humble but path-breaking cess of 1999 is now the monster eight-rupee road and infrastructure cess that no one protests paying. Why, then is our logistics still so outmoded?

**Highways**

There has been substantial investment in highways in the last administration. The adoption of models like Hybrid Annuity reversed a slump caused by concession models that transferred excessive risk to the private sector, who, regardless had bid aggressively for projects. Public sector banks lent to them on the back of projected cash flows that never materialised. Post the 2008 Financial Crisis, banks were left holding unfinished projects. Most of these have now been restructured and restarted. However, the sector still needs to solve three challenges:

(a) Barrier free movement for freight road traffic—trains, after all, are not stopped at state borders

(b) Ensuring maintenance of the national highway network

(c) Avoiding white elephant highways, while retaining an appropriate risk-reward framework

For a long time, open road tolling was not possible because offenders could not be identified, absent a national vehicle number database. Now we have one—VAAHAN—and we have e-way bills too. We should remove all our toll plazas and move to toll gantries, beginning with high traffic routes.

For highways on the BOT model, on annuity or hybrid annuity concessions, there is a built-in mechanism to penalise operators for poor maintenance. Is that working? What about highways on a BOT-capital grant model or those being tolled by NHAI? As the highway network expands and begins to age, a transparent mechanism to monitor and maintain the quality of roads needs to be rolled out.

Finally, hybrid annuity models do not transfer traffic risk to the private concessionaire. As the network grows beyond the obvious congested routes, there is a risk that roads will get built where there is no traffic, even in the near future. To forestall this, we should switch to concession models that limit the transfer of periodic traffic risk, but still retain transfer of lifetime traffic risk—like Least Present Value of Revenue models. For this, we need to familiarise our financial institutions with such methods.
**PMGSY: Rural Roads**

The construction of 600,000 plus kilometres of rural roads, over the last twenty years, across governments of different political persuasion is testimony to the consensus over rural connectivity. Many states now have supplementary rural roads programmes financed from their own budgets. It has undoubtedly played a major role in moving our workers off the farm, to new activities and locations. The maintenance of this network should now be our primary concern. The initial PMGSY contracts had a built-in maintenance period, many of which have now concluded. An institutional mechanism to maintain the PMGSY network needs to be put in place. One model can be the performance based CREMA contracts of Argentina, broadly similar to the initial PMGSY contracts, but for rehabilitation and maintenance, with penalties for not meeting performance outcomes.

**Railways**

Even the lowest tariff freight train makes more money than the Rajdhani. We need to shift the conversation around Railways from passenger to freight—a critical logistics function essential to support manufacturing. Currently, track capacity is exhausted running passenger trains. In the short term, it is necessary to: (a) prioritise signalling investments on a war-footing to expand capacity and (b) rationalise passenger trains, by combining capacity and retiring trains.

In order to determine which trains to retire, the Railways needs to develop the ability to cost each train, which it currently does not do. The passenger subsidy numbers bandied about are an artificial construct and an over-aggregated exercise. Developing this costing methodology is a priority.

The Dedicated Freight Corridors should also free up capacity by taking traffic away from existing lines. The transport of coal, which still makes up about half of Railway’s traffic, will slow down or even decline as coal power is reduced and produced progressively at the pithead. Can Railways fill this freed-up capacity with other cargo, containerized or otherwise, and with revenue generating passengers? Can it become a logistics company from a mere transporter from one station to another? The strategy that is chosen will have implications for number and types of locomotives and rolling stock. The e-commerce parcel segment is a good way to start this transformation. It will force the Railways to deal with inter-modality, a necessary ingredient for its medium-term survival.

Suburban passenger services are urban public service obligations. This activity needs to be separated and costed. Then it should be funded separately, as for example the urban metro rail projects.

Finally, the Indian Railways needs financial engineering. Today, a huge portion of its revenue is spent on pension benefits for its retirees. This is an obligation that will progressively reduce over time, as the effect of the National Pension Scheme begins to show. Railways can restructure this predictable liability to reduce its current expenditure and free up resources for investment.

**Ports**

Today, JNPT is quite possibly no longer the Indian port that handles the most containers. That position is likely held by Mundhra, a port owned by the Adanis, connected by a joint venture rail track to the Delhi-Mumbai rail corridor. Mundhra has an unfair advantage—it can decide its prices, JNPT cannot. The tariffs at our major ports (i.e., those owned by the Union government) are determined by the Tariff Authority for Major Ports (TAMP), an anachronistic holdover in a competitive sector. The Tariff Guidelines notified this year are a far cry from the price flexibility that Mundhra enjoys.
Not only are the tariffs rigidly determined, the structure of our major port concessions are designed to make it costly for our traders to transport. Between a third and a half of the tariff is shared with the government, depending on the port and berth, since the gross revenue share is the bid parameter. It means that tariffs could be reduced by half in some cases and the port would still be viable. Like spectrum, this is again an instance where the urge to raise fiscal resources prevailed over the need to ensure competitive logistics costs for our industry. It is time to take three actions.

First, disband institutions like TAMP treat ports as a competitive sector, with tariff freedom for operators and improved competition oversight. This should be accompanied with a move away from a revenue share concession structure to a fixed concession fee.

Second, invest in port connectivity to spur inter-port and intra-port competition. The rising share of non-major ports indicates that there is growing inter-port competition, even with problems in road and rail connectivity. Added to this is intra-port competition, when there are multiple operators in a port.

Third, we need to re-examine our approach to coastal shipping. Our eastern ports, together with ports in Bangladesh, Myanmar and Thailand, can act as a sea-bridge to our northeast and integrate our industry with South East Asian value chains. The Bay of Bengal will buzz with crisscrossing ships.

Together, these actions, across road, rail and ports, along with regulatory action and investment to facilitate multi-modal transport, will reduce our logistics costs and make industry more competitive.

Water Treatment

Every major city in India kills at least one river. Even as Chennai dries and Mumbai drowns, Delhi blithely pollutes the Yamuna. Our farms mismanage water and our cities poison it. Yet, with the possible exception of the National Mission for Clean Ganga, there is little programmatic effort – like the National Highways Authority for India for highways – to preserve our rivers and water bodies.

This is not just a matter of building sewers and sewage treatment plants – a significant portion of such treatment capacity lies unused. We also need to consider the reckless destruction of even groundwater resources by industries that dispose their waste underground, aided by incapacitated pollution control boards—the corridor from Vatva to Vapi rivals the worst polluted areas of China—and the damage caused by chemical run-off from overuse of pesticides and fertilizer in agriculture.

More than inland waterways, river inter-linking and large dams, we need focus on wastewater.

The Digital Future

Even as we address these basic issues, digital technologies are changing the way infrastructure is provided, operated, charged for and maintained across sectors. These technologies permit services to be delivered more efficiently, less expensively, use less resources, cause less damage to the environment and reach a wider user base. This will not happen automatically or quickly but the process can be accelerated with an appropriate mix of regulatory mechanisms and financing tools.

The availability of funds is not the constraint that will restrain growth of digitally enabled infrastructure. The challenge is to design projects to balance risk and reward in a way that providers are incentivised to serve users well, while financiers are insured from the realisation of uncontrollable risks.

One such financial risk is the fast-obsolescing nature of these technologies, where yesterday’s cutting edge is tomorrow’s discard. This structural
risk can slow down the adoption of socially beneficial technologies. Slow adoption can also be engineered by those who will lose their investments from new technologies. This will need public action in terms of financing models and regulatory oversight.

**Conclusion**

Our infrastructure models are still operationally inefficient, financially fragile and future-unready, both in terms of technology and the environment. For too long – across governments – we have focused on making money from infrastructure rather than seeing it as a service that can power growth and enable the transformation of India. If we did manage to convince our private sector to invest enough to get us to 8%+ growth, we will hit a wall of infrastructure constraints. We have lived too long off our earlier investment in the past few years. We cannot do so any longer.

**END NOTES**

1. Henry Hub, the US local benchmark and increasingly an alternative basis, vis-à-vis oil, for export pricing, has stayed below USD 3 per mmbtu for three fourths of the time over the last five years.
2. This is to avoid situations where spectrum trading leads to licences that are too small to be practical, resulting in inefficient use of spectrum and unnecessary administrative costs.
India’s labour market is ailing. Addressing of the employment crisis has been mired in a raging debate over the scale of job creation, the availability of data, and which sources and indicators – unemployment or productivity and wages – accurately reflect the state of the job market. The new government has an opportunity to move beyond this debate, acknowledge what ails the labour market, and take measures to address the crisis.

What are the Challenges?

Only one in two Indians of working age, 15 years and above, participate in the labour force. Only about one in four women of working age, 23.3%, enter the labour market. Female labour force participation has been declining since 2004 when it was 42.7%. This drop can be attributed to several factors ranging, for instance, from girls staying in education longer and delaying their entry into the labour market, to the ‘middle income effect’. A lack of demand from female friendly industries, such as apparel and footwear, and continuing social disapproval are both important factors. Other culprits include migration and the nuclearization of families where there are fewer women in the household to contribute to domestic work. Female or male, low labour force participation is a loss of precious productive potential.
Unemployment is also a loss of productive potential. Recent data suggests that unemployment rose to 6.1% in 2018. A rise in unemployment can largely be explained by the fact that more young people are acquiring an education. With education comes the expectation of a better job. Those who can afford to educate themselves also tend to be in a position to wait for the right job to come along.

Whether one buys the hotly contested unemployment figures or not, the possibility of a growing trend in unemployment is a matter of concern; but arguably more pressing, certainly in terms of the scale of the problem, is the issue of underemployment. The quality of jobs is as important as the quantity of jobs, and in India more people struggle with the former than the latter.

Most people in India cannot afford to be unemployed; they have to work to sustain themselves. Among those who are working, informal employment as a share of non-agricultural employment was 68.4% in 2018. Informal employment usually entails the sharing of low-productivity work, with poor wages and the absence of social protection.

India’s 361 million youth between the ages of 15 to 29 represent just under 27% of the country’s population. Inspired by the narrative of an emerging market economy with high levels of economic growth, India’s youth have rising aspirations. Yet economic trajectories are not built just on aspirations and potential, but also on opportunity. Many of India’s youth face constraints in terms of opportunity arising out of low household income, caste, tribe, gender, special needs or religion. The inequality of opportunity in one’s younger years manifests in an inequality of outcomes in adulthood.

Enrolment rates have increased, but learning outcomes remain weak, especially for youth from vulnerable backgrounds. Skills training, especially short-term programmes, cannot compensate for years of poor education. Training may help a young person get a job, but without the requisite levels of education and soft skills cultivated early on, these programmes are unlikely to offer economic mobility and career pathways.

If these challenges go unaddressed, the nation will squander its demographic advantage. This brief window, where the working age population constitutes a rising share in the total population with a relatively smaller dependent population, will slam shut in approximately two decades from now.

How Can these Challenges Be Addressed?

The nation needs a National Employment Strategy that will lay down specific goals in the following three areas:

1. Generating productive and well-remunerated jobs, which entails making public allocations to support sectors that absorb more labour
2. Making enduring, long-term investments in human capital through good quality education, skills and on-the-job training
3. Strengthening labour market institutions – including thoughtful reform of labour regulations, the implementation of a statutory minimum wage, and provision of social protection, especially universal healthcare

Ministries should submit annual action plans laying out how they intend to realize the goals set out by the National Employment Strategy. The plans should follow a standardized template specifying (i) concrete actions, (ii) resourcing, (iii) metrics for success and (iv) timelines. These plans should be submitted to an appointed individual in the Prime Minister’s Office (PMO) – a ‘Senior Officer In-Charge’. Consolidating the plans under the PMO will also ensure coordination and coherence across different players. In the next five years, the National Employment Strategy should focus on the following.
Short-term cash transfers to farmers are the flavour of the season, but these address the symptom, not the cause. More effective would be investments in irrigation, energy and transportation infrastructure for rural areas, which will alter cropping patterns towards more labour-intensive and higher value crops. Programmes to ensure competitive pricing of inputs such as fertilizer and revising skewed subsidy structures are key. Addressing price volatility to give farmers access to fair compensation for their produce, coupled with a regulatory framework that breaks the culture of labour contracting and middlemen in farm employment, will help agriculture become more productive and also attract, absorb and retain more labour. Finally, providing access to land records and real crop insurance, especially to small-scale farmers, will also help protect them in case of a crisis, environmental or otherwise.

1. Generating productive and well-remunerated jobs by focusing on sectors that absorb more labour: Labour-intensive manufacturing

When seen through a jobs lens, the composition of growth matters even more. In addition to improving productivity and wages in agriculture (Box 1), the nation needs an industrial policy that fosters labour-intensive manufacturing. The National Employment Strategy should call for the formulation of an industrial policy that propels us beyond an ad hoc smattering of industrial parks and estates, special economic zones, or model townships, to undertake a series of steps to enable the growth of manufacturing firms, especially small ones with potential.

Sectors such as agro-processing can be labour intensive and can boost both agriculture and manufacturing, but this requires developing domestic value chains and associated infrastructure. The industrial policy should actively address issues ranging from land clearances to access to power and tax incentives to help bolster manufacturing firms, especially small ones with the potential to grow.

In addition to developing modern domestic value chains, the nation’s industrial policy should ascertain how to support the export capacity of firms and encourage participation in global value chains. This calls for a reassessment of current tariff structures, especially the inverted duty structure, to make manufactures more competitive. We must also leverage trade agreements and regional integration to gain market access and stake claim in relevant value chains.

The latter investments in manufacturing will spawn services in sectors such as logistics and transport. These sectors will be increasingly critical for job creation in the coming years. All of these steps must be embedded in sound physical and energy infrastructure, both of which will themselves absorb labour. The government should adopt a methodology

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**BOX 1: Raising Productivity in Agriculture**

With 44% of the employed in agriculture, it is the most labour intensive, though the least productive, of the nation’s sectors. The common definition of structural transformation refers to a reallocation of economic activity away from agriculture to higher value-added sectors such as manufacturing and services. But transitioning such a large number of workers out of agriculture and quickly finding them gainful employment in other sectors is unlikely. A more realistic transformation could be one in which the focus is on improving productivity (and consequently wage levels), especially in agriculture. Increasing productivity is a better way to reduce unit labour costs than reducing wages.
to measure the potential economic impact and multiplier effects of a given infrastructure project, especially with regard to its potential to facilitate direct and indirect employment. This should be a criterion in targeting public investment accordingly.

2. Make enduring, long-term investments in human capital: Education, skills and private sector engagement

If generating more labour market demand is one side of the coin, the other is making necessary investments in human capital. A National Employment Strategy should lay out a plan to make enduring, long-term investments in human capital through good quality education, followed by skills and on-the-job training.

The Ministry of Human Resource Development and the Ministry of Skills Development and Entrepreneurship should be merged to establish an effective school-to-skills-to-work continuum instead of separate education and skills silos. Skills training, especially short-term programmes, cannot compensate for a lack of quality basic education. As such, spending just 3% of GDP on education is inadequate; we must allocate at least 6% to this most critical priority, making sure that the most vulnerable populations have equal access to quality learning.

As such, spending just 3% of GDP on education is inadequate; we must allocate at least 6% to this most critical priority, making sure that the most vulnerable populations have equal access to quality learning. But equally important as more spending is reform of the current system to include, among other things, a greater focus on cultivating employability in school.

As school curricula are reviewed, they must also consider nurturing employability in age-appropriate ways. Soft skills, from hygiene to confident communication, must be fostered from early ages. As a child progresses through secondary school, exposure to a range of trades such as the basics of growing food to cell phone repair, basic woodworking and beauty and wellness can instill adaptability, awareness and a work ethic. This form of ‘multi-skilling’ goes beyond the currently limited models of vocational education in secondary schools. These practices do not have to detract from a focus on the basics: reading, writing and arithmetic; rather, they can root learning in practical application. All children in school, regardless of gender or other social groupings, should be exposed to a multitude of similar trades. Gender stereotyping in skills training is a disservice to the individual and to the mission of creating better employment for more people.

Another glaring gap in the current ecosystem is that training has been largely supply driven. Efforts to properly align training to the needs of the labour market have been deficient, and effective private sector engagement is lacking. Both of these must be rectified if the skills training system is to be operative.

First, market demand must drive skills training across providers. For this, there is a need to map demand such that the method not only examines the anticipated growth of certain large, formal sectors, but is also fine-tuned to take stock of the registered and unregistered enterprises of different sizes and in different geographies to align job seekers to the wide range of jobs that do exist.

Second, there is a need to reform the Sector Skills Councils (SSCs) to more effectively engage the private sector. The private sector is essential for on-the-job training, apprenticeships and internships; it is also critical for understanding market demand and the qualifications needed for different job roles. It is a valuable source of information to understand how demand projections may change in subsequent years: that is, which sectors will need how many workers, and when? This is particularly important as technological change alters the way people live and work at an unprecedented pace.

Yet the current channels for engaging with the private sector – the SSCs – have been inadequate; their efficacy has been marred by factors including endemic corruption, inability to conduct assessments and certifications effectively, and turf battles with other SSCs and stakeholders. The existing National Skill Development Policy needs to be updated and fine-tuned to, among other matters, reform the SSCs.
3. Strengthen labour market institutions: Toward a simpler labour code, a national floor minimum wage, universal social protection and better data

Labour regulations are a subject of charged debate—one that seems perpetually inconclusive. The disagreement over whether these laws constitute rigidities that stymie firm and employment growth notwithstanding, most stakeholders agree that there is a need to simplify the existing labyrinth of Indian labour regulations. A clear and consistent labour code is inviting for business and investment. A National Employment Strategy should facilitate the simplification and rationalization of the nation’s labour laws.

Minimum wages that serve as a floor, to ensure that all workers can afford to meet their basic needs, is a necessary part of a successful wage regime. Labour market regulations have to strike a balance between efficiency and equity. India’s national floor level minimum wage was instituted in 1996, but it is non-binding. That is, it has no statutory backing under the Minimum Wages Act, or elsewhere. It is merely an advisory floor limit for the state governments to align their wages to. A successful wage regime is one that is enforceable and provides compensation ladders; it is established through sound industrial relations and collective bargaining, and is periodically adjusted to ensure that wage growth aligns with changes in productivity and prices. This is what we need.

Social protection is about more and better workers—the complement to the ongoing quest for more and better jobs. To this end, basic social protection—health, pensions, maternity, death and disability benefits—should be made available to all through a combination of affordable social insurance and public provision of services, especially healthcare, that allow universal access. Currently only about 7% of the labour force has social insurance; even workers in some organized sector enterprises lack social insurance.

Healthcare is perhaps the biggest concern when it comes to building a productive workforce with economic mobility. That public spending on health—for a country of over 1.3 billion that boasts high levels of economic growth—is barely over 1 percent of...
GDP is unconscionable. Millions are one healthcare emergency away from crushing debt and poverty. A National Employment Strategy should call for a simplification of the wide web of existing social insurance schemes, and pave the way towards government support for universal healthcare; this is an imperative for a healthy labour market. As technology, migration and urbanization upend traditional employment models, increasing the prevalence of contract and other flexible categories of workers, social protection becomes delinked from employment, which further reinforces the argument for public provision of universal healthcare.

Data and evidence from the field must underpin the National Employment Strategy. ‘The lack of reliable estimates on employment in recent years has impeded its measurement and thereby the Government faces challenges in adopting appropriate policy interventions,’ wrote the government’s Chief Economic Advisor Arvind Subramanian in the 2016-2017 Economic Survey. The Survey goes on to acknowledge the many limitations of India’s labour market data including ‘partial coverage, inadequate sample size, low frequency, long time lags, double counting, conceptual differences and definitional issues’.

Efforts to gather more data more regularly and frequently with a consistent methodology, and making the results public, are central to the success of a National Employment Strategy. Subsequent Strategies will be strengthened as more time series data becomes available to accurately assess labour market trends. Any data analysis must be textured with qualitative research that can yield nuances and insights, which are as important as those from broad-brush quantitative data.

A National Employment Strategy also needs political will and resources. Given the urgency of addressing the jobs crisis before the demographic window closes, the Strategy cannot be held hostage to an arbitrary fiscal deficit ceiling. Beyond how much a government spends, the composition of spending matters. That is, spending on the aforementioned areas is more likely to contribute to growth and to a wider distribution of its benefits than other forms of expenditure. In addition, there is a need to reassess existing tax and subsidy regimes to ensure that they are progressive, and that they garner more resources to realize the Strategy’s goals.

Suchha vikas will take work. Whether salaried or self-employed, whether on family farms or in manufacturing facilities, people across India’s culturally and politically diverse landscape rely on their work to earn a living, to fulfil family and social obligations, and to satisfy the aspirations that drive and motivate them daily. Politics and policy must take the necessary measures to deliver just jobs; India’s progress depends on it.

END NOTES

   (Labour force participation rate (LFPR) is here defined as the total number of employed and unemployed persons in the country out of the total population above 15 years of age.)
2. Ibid.
3. Ibid.


21. Several South East Asian nations have carved out the fiscal space to provide universal healthcare to their populations in recent years. The system can be a combination of a contributory and government-subsidized scheme. In the context of India, the latter inevitably calls for collapsing other existing programmes and reforming taxation policies to garner more revenue to this end.

Back-End First: A National Agenda for India’s Agricultural Markets

MEKHALA KRISHNAMURTHY

The new national government begins its term against the backdrop of an agricultural sector estimated to be growing at just around 2 percent, a poor rabi season across many regions of the country, and a period marked by the collapse of farm gate prices across numerous commodities. It is estimated that farm incomes might be growing at the slowest pace seen over the last fifteen years, even as there is a renewed policy vision of doubling them in a short span of time. After a long season of repeated protests by farmers, agrarian distress remains very much in the spotlight.

The policy debate was initially dominated by the two longstanding demands of farmers’ movements: higher, guaranteed Minimum Support Prices (MSPs) and farm loan waivers. More recently, the political focus has centred on the promise of introducing income support transfers for farmers and the rural poor, with a range of state and national schemes having been proposed and rapidly rolled out in the field. While these schemes deserve close attention, a much more urgent need is to take a comprehensive and systemic approach to agriculture. This must include prioritising the deep challenge of reforming India’s agricultural markets. Not only are agricultural commodity markets a central element of the larger strategy to support and improve farmers’ incomes, they are at the very heart of Indian development and the dynamics of growth, distribution and equity. Agricultural commodity markets are the connective tissue in the economy: connecting agricultural production, circulation and consumption, interlinking livelihoods.
and logistics across the agrarian and non-agrarian sectors, shaping the relations between cities, small towns and villages, and those between local and regional markets for commodities and larger, national and global circuits of capital and commerce. There is therefore every reason to build on the existing momentum, knowledge and experience to forge a genuinely national agenda to reform India’s agricultural markets.

Importantly, this time there is a unique context that has opened up for the pursuit of such reform: the ambition to create a National Agricultural Market (NAM). Indeed, this is an idea that has featured in policy documents over the last few years, dating back to 11th and 12th Plan mid-term reviews and task groups. It subsequently featured in the Union Budget in 2014 and 2015, and was finally launched by the Central Government in the form of eNAM in April 2016.

Historically, the regulation of agricultural markets in India, especially at the primary level where farmers sell their produce, has come under state legislative acts and under the management of local market committees. As such, they are characterised by variation and fragmentation across regions and commodities systems. The move towards designing and facilitating a national market for agricultural commodities is therefore a transformative shift.

However, eNAM, envisioned as ‘a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities’ has led into this ambitious effort with a singular focus on getting select local mandis trading online. Even so, the process of trying to get eNAM off the ground has forced, at least to some extent, a deeper engagement with existing physical markets and the varying conditions under which they operate. This has made it quite apparent that if the vision behind a National Agricultural Market is to be realised, we need to start from the back-end first. For this to happen, the central government needs to take both a more contextual and more comprehensive approach to market reform.

**Going back from the Dashboard to the Drawing Board**

In its first phase of implementation, the eNAM scheme is reported to have networked 585 APMC mandis across 18 states. Of these, less than half (252 mandis) have shown evidence of any level of online trading activity. Field reports, including the findings of a high-level Government-appointed Expert Committee, provide a sense of the numerous challenges the initiative is facing on the ground. In many cases, computer terminals have remained in their boxes; in others, data from offline auctions or government procurement has been retrospectively entered into the e-NAM portal; some mandis have avoided moving high-volume commodities online due to delays in facilitating exchange; others only use e-NAM on a single day of the week or off-season before reverting to business as usual; and across the board there have been few takers for assaying and quality specification, with testing equipment remaining widely unused. In states where regulated markets are not the primary channel for local marketing and trade, mandi functionaries have struggled to attract buyers and sellers into market yards, let alone getting them to bid online. Where mandis are in fact dynamic hubs for local trade, open auctions or manual tendering are not always conducted in the first place or for all commodities; in such cases, moving buyers and sellers from no auctions to e-auctions is not an easy task. And even when auctions are common practice, enforcing a system of direct electronic payments for all transactions is a significant challenge for farmers, traders and commission agents with prior histories of credit advances and cash rotations.

All this is not to say that electronic auctions and other price discovery mechanisms on a trading platform that enables both local and long-distance buyers to bid on farmers’ produce is an inconceivable enterprise. On the contrary, there is little doubt...
and growing evidence that farmers and traders across the country are capable of integrating digital technology and online platforms into their marketing practices. It does, however, force us to contend with the reality that agricultural markets are at once highly specific, diverse and differentiated in terms of their structure and organisation—across agro-ecological regions, land regimes, socio-economic groups, commodity systems, agro-commercial networks, and regulatory histories and priorities. For instance, different commodities cultivated in the same field follow diverse post-harvest pathways of exchange, trade and processing. The same commodity also typically moves across different states and even within the same state through different channels and intermediaries, a significant proportion of which are not formally regulated. When it comes to regulation itself, there is no single agricultural marketing act across states, some states don’t have an act at all, and even a single state act is differentially implemented (and sometimes left largely unimplemented) across districts, blocks and commodities. Moreover, a great deal of regulatory work in agricultural markets doesn’t happen through legislative acts but through the issuing of ad hoc government orders and even more extensively through informal (but often highly organised) industry associations and trading networks. In this context, building a National Agricultural Market cannot begin or end with electronic integration: it requires an enormous degree of field-based data and analysis; significant institutional, infrastructural and logistical investment; and deep regulatory reform, synchronisation and capacity building.

Learning from the first phase of e-NAM implementation, there is a need for a reorientation in the approach: states should not have to ‘plug into’ the e-NAM via a software; instead, they have to substantively buy into and participate in the process of creating a National Agricultural Market.

The challenge of reforming agricultural markets

Agricultural marketing reform is the proverbial ‘hot potato’: vital, visible, and politically volatile. When it comes to taking on major regulatory and policy reforms to open up and invest in agricultural markets, there are two key sources of resistance that are usually raised.

First, historically, the local traders, commission agents and regional processors who have, in different regions and periods, gained from the dominant regulatory regime often exercise considerable local and regional political power. This makes it very difficult for state governments to initiate and sustain deep and wide-ranging reforms to open up agricultural markets to competition. Moreover, in many cases, these same market actors work across input and output markets, while also financing (through credit) both agricultural production and household consumption, making them especially difficult to dislodge through isolated or piecemeal market interventions.

The second is the political purchase of the Minimum Support Price (MSP) and procurement, the most publicly prominent means of state protection of farmers in markets. But we know that in the vast majority of states and commodities across the country where MSPs are not backed by procurement operations, their declaration has no effect on the prices that farmers receive for their produce. In the two states where the government has grown over the decades to become virtually the only buyer (i.e. wheat and paddy in Punjab and Haryana), it has effectively diminished or destroyed market competition—and crop diversification, reducing mandis largely to the role of seasonal procurement centres. And in states where public procurement is only partially and differentially implemented, it has tended to drive private trade undercover, generally to the detriment of those farmers who are already structurally constrained and unable to sell to state agencies for a variety of reasons (tenant farmers, sharecroppers, and
farmers in regions where procurement mechanisms are weak). Moreover, public procurement has often ended up strengthening the hand of the commercially and politically powerful in regional markets by routing procurement through intermediaries (e.g. arhatiyas/commission agents in Punjab)\(^{12}\) or agro-processors (e.g. rice millers in West Bengal).\(^{13}\)

These, then, have been the intended and unintended political consequences of state action—or as often, state inaction—in regional agricultural markets. However, they cannot continue to serve as reasons for resisting market reforms. There is now significant evidence to suggest that states need to change their approach to the status quo and at least some experience that demonstrates that they can find the will and the ways to do so. Following are a few recommended directions for policy and public investment in agricultural markets with a focus on strengthening the terms of exchange for farmers.

**Strengthening primary markets through regulatory reform and public investment**

There is now growing evidence that when farmers are actually able to choose between multiple market sites and options for the sale of their produce, they gain from improvements not only in terms of price, but also in other critical and closely related elements of commodity exchange, such as accurate weighing, reduction in marketing costs (for e.g. high rates of commission, deductions based on quality etc.), and timely settlement of payment.\(^{14}\) This is why regulatory reform to open up the current APMC mandi system to competition from multiple channels and sites of exchange—including local traders, private corporations, co-operatives, producer companies, and other physical and electronic spot markets—is so important.

At the same time, the removal of statutory restrictions without concomitant public investments in enhancing the system's regulatory capacity and core market and logistics infrastructure is unlikely to yield sustained improvements. For instance, we have seen quite clearly from research in Bihar over the last decade that a blanket repeal of the APMC Act leads to both the proliferation of small, self-regulated private horticultural markets and staggering infrastructural holes in major agricultural markets in the state.\(^{15}\) We also have evidence that the presence and participation of farmers in competitive local wholesale markets is likely to increase the bargaining power of farmers even in bilateral negotiations with village-level traders and in contract farming arrangements at the farm-gate.\(^{16}\) Finally, we note that single-buyer channels (whether run by private corporations, state procurement agencies, regional processors, or farmers organisations) invariably open and close operations according to their own strategic requirements, tend to have strict quality standards and therefore higher rejection rates, and typically work with only select categories or networks of
producers. This is of course perfectly understandable and to be expected given the different commercial logics at play. But, it also strengthens the case for ensuring that farmers have access to multiple market sites, and especially to inclusive multi-buyer local wholesale markets that operate around the agricultural year. States therefore need to open up the marketing system by removing the APMC/mandi-centricity of current agricultural marketing regulation while simultaneously increasing public investment in developing primary agricultural markets and in the state’s own regulatory capacity.

This will involve working systemically on the regulatory design and structure of agricultural markets and then comprehensively identifying and addressing commodity and region-specific market requirements, both of which will need greater resource support and institutional capacity at different levels of market organisation. But, perhaps most importantly, serious and sustained investment in reforming agricultural markets will require much greater clarity on the remit of the state in markets where it plays multiple, conflicting roles well beyond the scope of primary agricultural marketing legislation. This extends to a whole range of commodity trade restrictions (on sale, stocking, movement, and export) that governments routinely and usually idiosyncratically impose and lift in markets. The Indian state will also continue to play a role in the procurement, stocking and distribution of certain major commodities, but these roles must not disregard and distort the functioning of agricultural markets. A recent example of this was the attempt to punish private traders for buying commodities below MSP in Maharashtra. This kind of action will only shut down not strengthen markets for farmers. At the same time, any national agenda for agricultural reforms must necessarily include a full range of context-specific measures to address the multiple structural constraints that Indian farmers face in the production and marketing of their produce. This requires a much greater understanding of the complex interlinkages between agricultural production, marketing, and consumption and much deeper engagement with existing, expanding and intensifying forms of agricultural risk.

Farmers and markets: changing the terms of exchange

In the Indian context, where we have a vast and highly differentiated social and economic group of farmers, policies directed at strengthening the terms of their participation and exchange in markets must begin by understanding the structural constraints that different farmers, especially the large majority of small and marginal farmers, face in different commodity markets. These include constraints related to the ownership of and access to land (via a wide range of largely undocumented tenurial and sharecropping arrangements) and the extent and impact of the fragmentation of plots at the level of a single household. In recent times, the challenge of including landless farmers in income transfer schemes has rightfully received renewed attention, but tenant farmers, sharecroppers, and small and marginal farmers commonly experience a range of constraints in accessing resources essential for both agricultural production and marketing. Further, across regions, farmers experience diverse constraints and unfavourable terms in markets for credit, inputs, water, storage, transport and insurance, which in turn may be interlinked with agricultural commodity markets. Addressing these constraints requires engagement with a much larger set of agricultural institutions outside—but connected to—output markets for agriculture produce. Finally, even medium and large farmers in India rarely have access to risk mitigation instruments to support their participation in volatile domestic and global commodity markets. Each of these areas needs investments to support grounded research and analysis, a consideration of promising initiatives, policy design, and much greater institutional capacity and resourcing for context-specific implementation.
Diversification and scale: agro-ecology, agricultural markets and farmers institutions

The second critical relationship between production and markets involves farmers’ capacities to respond to markets by changing their production decisions, often referred to broadly as the challenge of diversification. Here, it is now beyond evident that we have long been suffering from the ecological and economic consequences of cereal-centricity (wheat and paddy/rice) in agricultural policy. Over the next several years, central and state governments must chart a course to help farmers through a complex cropping transition in different regions. This requires a change in our approach to agricultural research, subsidies, and to public procurement, which needs to be developed into a more dexterous and limited intervention that does not blunt responses to both market signals and to signs of agro-ecological depletion. Procurement could potentially be directed to primarily cover neglected and underdeveloped regions and prioritise nutritious commodities—especially pulses and millets—along the lines of recent initiatives in Odisha.20 States could also consider developing a framework for MSPs that incorporates risk and social externalities as proposed in the 2016 Committee Report on Incentivising Pulse Production.21 The very recent announcement of a set of incentives by the Government of Haryana to shift farmers away from the cultivation of paddy to other crops (such as maize, arhar, and soybean) is another sign that this is an increasingly urgent priority.22

Agricultural markets will respond to changing domestic and global consumption practices and this is critical to the dynamics of diversification and scale. But, significant public investment needs to be directed towards enabling Indian farmers—who are already, given all the constraints, highly responsive and adaptive—to make complex production and marketing decisions as both climate change and global commodity markets redefine the nature, frequency and extent of volatility for farmers across the country. This calls for a long-overdue revival of a broken public agricultural extension system and the building up of resource support institutions and networks at all levels. Our imagination of farmer producer organisations (FPOs) must also go beyond viewing them only as commodity aggregators and extend to the roles that they can play in deepening and defending the interests of farmers in local, national and global agricultural markets. For this, local agricultural knowledge and decision-making capacities must be supported and strengthened as farmers weigh increasingly diverse and complex information, select risk mitigation measures, make calculated trade-offs, and prepare for frequent changes and disruptions to their systems of agricultural production and marketing over the medium and long-term. Indian farmers already deal with all of this, day after day, season after season; the state must now take very seriously its role in continuously strengthening the terms of their engagement in agricultural markets.
Of Investment and Jobs

PARTHA MUKHOPADHYAY

Despite showing very healthy headline growth, there are continuing concerns about India’s economy’s attractiveness for investment and its potential to provide jobs. The solutions for these fundamental issues are not simple, but many simplistic recommendations abound. Which are the false hopes that one must not harbor?

Interest Rates and Investment

In principle, a fall in corporate investment can be attributed to two factors, viz. (i) an increase in interest rates and (ii) changes in expectations about the future, as shown in Figure 1. A reduction in the expected future growth, e.g. from 8% to 5% per year would mean that the corporate sector would invest less, since they expect to cater to a lower demand. This is illustrated by a downward shift in the demand curve from $E_{\text{High}}$ to $E_{\text{Low}}$. So, even at a low interest rate of OL, the investment falls from OD to OB. In addition, if there is rise in interest rates from OL to OH, driven in part by higher government borrowings, it falls even further to OA, assuming low interest elasticity. In this context, the RBI Business Expectation Index, shown in Figure 2, has improved since the lows of 2016, but not by much. To put it bluntly, business sentiment has been tepid. In Figure 1, an improvement in sentiment, i.e. a move of the investment demand curve from $E_{\text{Low}}$ to $E_{\text{High}}$, even if interest remains relatively high at OH, would increase investment from OA to OC, much more than that achieved by a reduction in rates from OH to OL. To grow investment, improvement in business confidence is needed. Business will always look for a lower interest rate, since it reduces their cost, but a low interest rate alone is unlikely to lead to a jump in private investment.

The critical policy question is thus: what will improve business confidence?
However, the core issue in the fall of the investment rate is not that of corporate investment, but that of household savings and investment, as seen in Figure 3 and 4. Investment in physical assets, mainly dwellings, took a hit in 2013-14 and has yet to recover. Post 2016, there has been some understandable reallocation away from financial assets to physical assets, but the aggregate has continued to be low, compared to historical highs of 2011-12. While the voter has entrusted his confidence in the current government, the household does not seem to have as optimistic a view about the future.

Thus, as with business, the policy question is: how to improve household expectations? The growth of good jobs will certainly help and improved agricultural income (beyond income support schemes) are major areas of action, if the household is to feel more confident.
Which is better for job growth - Manufacturing or Services?

There is much handwringing about India’s premature deindustrialisation and the need to revive manufacturing, in order to generate jobs. It is often posited as a choice between manufacturing and services. This is a false dichotomy.

It is important to recognise that in 1996, there was a 10 percentage point gap between India and China with respect to percentage of total employment in industry. In 2018, the gap had reduced to 4 percentage points. In urban areas, manufacturing is almost a fourth, 23%, of our workforce. Could our manufacturing sector be larger? Certainly, but that is not the whole story.

The nature of work more generally in both manufacturing and services sectors is undergoing significant transformation. The advent of the “gig economy” and technologies such as additive manufacturing (mass customisation vis-à-vis mass production) foreshadows a future of work that is likely to be very different from what is seen today in both manufacturing and services. The consequence of these changes is likely to play out over an extended period of time but it is important for us to recognise the kind of action that is needed now, as such changes occur in the future. Three issues, on the characteristic of services, the role of education and nature of social security, are important to point out.

Services embedded in manufacturing: First, as the World Economic Outlook from the IMF points out, manufactured goods now have an increasing share of services. Across all countries, such service inputs in the total production value of manufactures rose by about 6 percentage points on average between 1995 and 2011. This occurred due to both compositional effects as well as changes in manufacturing practices such as a more dispersed value chain. However, such service inputs in manufactured goods account for only about 12% of overall value added in the service sector. Over the same period, the share of services in aggregate value added increased by 7 percentage points; of this 6 points corresponded to a rise in final expenditure on services rather than spending on service as intermediate input. So, while manufacturing is becoming more service-intensive, services by itself is growing as a final consumption good. As seen in Figure 5, the share of basic necessities in total consumption is declining rapidly, while that of transport, miscellaneous items,
health and education is growing. Thus, as non-durable consumption (mostly basic goods and food) share is declining, the share of services is rising (Figure 6).

But, this is just the domestic consumption scenario. The emphasis on manufacturing must be associated with an export oriented strategy. India’s share of the world market is small enough for there to be substantial room for expansion—especially if one can become part of global value chains. For this, attention to reliable and competitively electricity supply and logistics efficiency is key to delivering goods on schedule.

A broad-based job creation strategy will build upon domestically oriented services (externally oriented high-end services will continue to generate high value but limited employment opportunities) and externally oriented manufacturing.

**Figure 5: Consumption Basket**

<table>
<thead>
<tr>
<th>Year</th>
<th>Roti Kapda Makaan</th>
<th>Health and Education</th>
<th>Transport &amp; Communication</th>
<th>Recreation and Restaurants</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>12.8%</td>
<td>35%</td>
<td>37%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2012-13</td>
<td>13.4%</td>
<td>37%</td>
<td>35%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2013-14</td>
<td>13.7%</td>
<td>37%</td>
<td>35%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2014-15</td>
<td>14.7%</td>
<td>35%</td>
<td>37%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2015-16</td>
<td>16.4%</td>
<td>35%</td>
<td>37%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2016-17</td>
<td>16.8%</td>
<td>35%</td>
<td>37%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2017-18</td>
<td>17.3%</td>
<td>35%</td>
<td>37%</td>
<td>12%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: National Account Statistics, percent of GDP (current prices)

**Figure 6: Growing Share of Services**

Source: National Account Statistics, percent of GDP (current prices)
Lessons for Education: Second, the fast changing nature of technology means that specific skills are likely to be less valuable, because they will become obsolescent over the lifetime of a worker. It is therefore important that education be seen as much more than training for the workplace, because the training that one will receive at a given point in time will last a worker only for relatively short period. Education has to evolve to a system where the core knowledge that is transferred is learning how to learn. In addition, it is also important to recognise that persons could need to acquire new skills and knowledge multiple times during their working life. As such, it is important to provide for an educational and training architecture that would permit workers to acquire new knowledge and skills at a relatively low cost, as and when the needed. Learning how to learn and lifelong learning are thus two characteristics of the education system that is needed to respond to the working environment of the future.

Social Protection: Third, the current architecture of most social security systems globally, including that of India assumes that a worker will be employed in a single job for extended periods of time. During this time the person is expected to make contributions into the social security system. These funds, including matching contributions from the employer are invested in a regulated manner and eventually upon the worker’s retirement, the return on these funds (and pension, if any) will meet the worker’s expenses during retirement. Additional elements of social security like health Insurance are often provided by the employer with the worker contributing a part, the whole, or none of the premium. These old assumptions about social protection are now increasingly invalid. A worker can change jobs multiple times. A person is occasionally in a formal job and occasionally self-employed or in informal employment. In such a situation it is imperative that the social security system including pensions, retirement benefits and health insurance be delinked from employment and made portable.

Conclusion

In conclusion, one critical takeaway is the importance of expectations. Price signals are an important component of this but there are many other factors involved in how business and households look to the future – and both are important, if India is to be on a sustainable high growth path.

The second takeaway is that we cannot afford to choose between manufacturing and services. Services have served us well and continue to be a larger part of the global economy and consumption basket. Even manufacturing now has substantial embedded services. We must recognise this, even as we pay more attention to generating more manufacturing jobs.

Finally, as the Fourth Industrial Revolution begins to affect our economies, we will need to pay more attention to the structure of education and the architecture of social security systems.

END NOTE

1. Of course, fear about the future may increase precautionary savings, but these are likely to be invested in physical assets.
The Opportunities and Challenges Confronting India’s Welfare Architecture

YAMINI AIYAR

Over the last five years, India has taken important steps towards significantly reforming its welfare architecture ranging from direct benefit transfers (DBT), Ayushman Bharat and income support (PM-Kisan) to the implementation of the 14th Finance Commission’s recommendations. However, underlying these reforms are important unresolved and deeply contested questions about the architecture of the welfare state. In particular, the questions revolve around centralization and capacities of various levels of government to deliver. The welfare policy under the new government will necessarily have to confront these questions and the opportunities and challenges they present. The ability of the new government to navigate this terrain will determine its effectiveness and capability to deliver high-quality public services to India’s poorest.

Technology, Income Support, Citizens and Bureaucracy

Technology has been at the heart of the welfare reform project over the last decade. In 2014, when the National Democratic Alliance (NDA) first rode to power, it embraced Aadhar and DBT.1 In March 2014, only 28 schemes used DBT to transfer funds. By May 2019 this had increased to over 400. In January 2019, the first national attempt was made, with the launch of PM-Kisan, to use the DBT architecture to introduce a basic income support programme in India. However, excessive reliance on technology to implement DBT has exposed three crucial limitations of the system: the last mile problem, lack of accurate data to identify the beneficiaries, and alienation of the citizenry.
The key rationale for scaling DBT and moving towards direct cash transfers through income support programmes is its ability to curb payment leakage and improve efficiency. In making the case for a Universal Basic Income (UBI), the 2017 Economic Survey argued that by moving resources directly into beneficiary accounts, income transfers have the potential of cutting down bureaucratic layers. This could curb discretion, simplify monitoring and therefore reduce corruption.

However, recent studies show that far from reducing bureaucracy, getting the DBT architecture right calls for significant bureaucratic intervention. From opening accounts to promoting financial literacy and facilitating bank transactions, local bureaucrats are critical to DBT. This is best highlighted in a recent NITI Aayog-commissioned process monitoring the use of DBT to access the Public Distribution System scheme in three Union Territories (Chandigarh, Dadra & Nagar Haveli and Puducherry). The study found that 20% beneficiaries reported non-receipt of payment even though official records indicate a transfer failure rate of less than 1%. This gap is not a consequence of leakage; rather, the study attributed the gap to lack of beneficiary awareness/knowledge of transfers and administrative issues (including payments being made into bank accounts not accessed by beneficiaries), or processing errors.

This problem of administrative preparedness is also highlighted in a forthcoming World Bank report. The report argues that DBT requires sophisticated financial management and technical skill sets that are beyond the current bandwidth of the local, sub-district bureaucracy. In various states, some of the key financial management tasks have been outsourced to private players and state IT cadres. However, capacity, just in terms of sheer human resources, remains a problem. Moreover, anecdotal evidence suggests that that DBT has at least in the short run increased rather than reduced the workload at the front line. Front-line officers are now responsible for tackling citizen claims and disputes on personal authentication, financial address information, payment settlements, etc., but without any improvements in human resource capacity and with skill sets remaining unchanged. This has caused significant, non-trivial disruption at the last mile.

Importantly targeted programmes like PM-Kisan require bureaucrats to identify eligible beneficiaries. To do this, critical data – such as land records and Socio Economic Caste Census surveys – needs to be regularly updated, and disputes between citizen claims and official records need negotiation. Doing this right requires bureaucrats to dialogue with citizens, coordinate across departments and absorb feedback – a skill that Indian bureaucrats simply do not possess. Countries like Brazil and Mexico have invested in large cadres of social workers at the local government level to do just this. But in the rush to bypass bureaucrats through DBT and transfer cash directly into bank accounts, this crucial investment has been ignored. Strengthening the basic capacity and capability of front-line bureaucracy – notably in terms of its human resources, even if its only task is to move money – will require empowering local governments with skills and resources to be genuinely responsive to citizen needs.

However, responsive governments require active citizen participation. Digitized efficiency risks casting citizens as passive recipients of government largesse instead of as active claimants of rights. This is not mere romantic activism. Technology by its very nature creates centralized systems that are distanced and bewildering for ordinary citizens in ways not different from the frustrating everyday encounters we have all had with call centre agents. Digitized welfare systems genuinely risk closing off spaces for citizens to complain, protest and demand accountability when rights are denied. The point here is not to argue against administrative efficiency; rather, I wish to highlight risks that need to be addressed. A balance needs to be struck between efficiency gains through centralized control and responsiveness through decentralized, citizen-centric governance. Striking this balance will be a critical challenge for the new government. One important way through which this challenge can be met is through strengthening the implementation of the Right to Information Act, particularly the mandatory requirements for proactive disclosure of information to citizens. But for information to be empowering, it must be relevant for citizens. This requires citizens to be actively engaged with the government in the.
process of generating information. Some governments, notably Rajasthan, have begun experimenting with ways of identifying relevant information through regular dialogues with civil society and building fora for making information available to citizens offline. These experiments ought to be studied and replicated.

**Regulation vs. Public Provision**

The launch of Ayushman Bharat in October 2018 marked the beginning of a significant architectural transition in India's welfare system—from direct provisioning (government-run hospitals and schools) towards financing citizens (through income support and health insurance) and regulating private providers. But this transition poses a critical challenge. How does a state that struggles with routine tasks build capability to regulate a sector as complex as healthcare?

A functioning health insurance system must ensure that patients are not under-treated; nor over-treated or overcharged. Ensuring this requires adaptive price setting, strict regulation, third-party monitoring and quality improvements in public sector hospitals.

**Pricing:** Getting prices right is the central dilemma in any insurance programme and one that all countries struggle to solve. This is because prices need to fulfil the dual function of ensuring 'neither too much, nor too little.' But costs for the same procedure are likely to differ across hospitals because of quality, location and capacity. Therefore, a single price can never ensure that both constraints are effectively met, and in fact, it is certain that these prices will never be the 'right' prices. Moreover, if the price is too low for a hospital, it will either choose not to enrol in the scheme, or it will deny services. When the price is too high, the hospital will make additional profits, or worse, try to convince patients to receive services when they are not needed.

The one thing that countries implementing large-scale insurance programmes have in common is a large analytical and data centre that continuously examines procedures, procedure coding and charges from the insurance scheme. Prices have to be frequently negotiated and updated based on the data, and this is a job for specialized teams of hundreds in each state.

**Regulation and insurance fraud:** In tandem, insurance schemes require creating a strong regulatory framework for fraud control. India's current regulatory environment is seriously weak. A study has shown that all 17 insurance ombudsman offices in India are currently vacant with a backlog of 9000 complaints. Gaps in the current regulatory framework imply that there is no established procedure for settlement of claims, redress of consumer behaviour against rejection of claims, or even penalties for rejecting claims in violation of existing regulations. This in turn creates incentives for regular violation of norms by insurance companies. Not surprisingly, the complaints rate in India is markedly higher than comparable jurisdictions across the globe. The success of PMAY is now intrinsically tied not only to the functioning of the health department, but also the criminal justice and court systems. A new, stronger legislative framework for regulation and insurance fraud is urgently needed.

The only way to ensure that these conditions for implementation success are met is through massive investments in a skilled workforce. In the US, the (largely) single purchaser Medicare scheme employs 6000 people to cover 44 million beneficiaries. These are all highly trained administrative staff handling insurance audits, pricing and medical records, dealing with anti-trust cases and fraud, and examining billing issues in each state. India has nowhere near this scale of staff. Consider Uttar Pradesh where the scheme may cover 50% of the population, or 100 million people. That would imply that the administrative staff to run a single purchaser scheme should be above 10,000. Across India most state insurance schemes and the Rashtriya Swasthya Bima Yojana (RSBY) have been run by trusts and offices employing fewer than 100 staff. In UP, the RSBY headquarters has only 42 staff. The point is simply this: running a scheme as complex as a large-scale health insurance programme requires people. Since the expertise currently does not exist (at least at this scale), PMAY will have to develop the necessary institutions to train these professionals.
Finally – and this is a lesson that applies more broadly to the dilemma of public vs. private provisioning – there is no getting around the critical need to strengthen public systems. Specifically in healthcare, in the long run well-functioning public hospitals will provide a much-needed backstop against predatory practices, denial of service and overcharging in the private sector. Especially in districts where competition is limited, public hospitals will limit the monopoly power of the private sector, flush with the new money from the scheme. A framework for transferring resources from the scheme to help government hospitals improve their quality is just as important as funding flows to the private sector.

The Centralization vs. Decentralization Tug of War

A critical underlying issue that influences the dynamic of welfare provisioning is that of financing India’s welfare scheme. Scholars of federalism in India have characterized India as a ‘quasi-federal’ or a federal system with a ‘centripetal bias’. In this context, the Union government has historically played an important role in financing welfare-related schemes; the dynamic of fiscal federalism and Centre-state relations is a critical ingredient that influences the implementation of welfare policy.

In the last five years, India has transformed its fiscal federal architecture, devolving unprecedented levels of independence and resources to its states. However, in doing so it has created a new dilemma – one of disparities between state governments in their ability to deliver welfare and other services. Effectively, this has meant that in absence of central support, the states with lower capacity to design and implement continue to fall further behind high-income states, widening regional disparities across the country.

This is not to say that the recent changes in India’s fiscal federal architecture should be rolled back. These include the dismantling of the Planning Commission; the establishment of the NITI Aayog and the GST Council as new institutions for negotiating Centre-state relations; and the implementation of the recommendations of the 14th Finance Commission that sought to enhance fiscal decentralization to states by reducing central government control over state spending. At one level, these changes were long overdue. Historically, India’s fiscal federal architecture has been extremely centralized. The delegation of fiscal powers and responsibilities specified in the Constitution reflects a ‘centripetal bias with the Centre having “overwhelming and overriding” economic powers’.8 To put it in perspective, states incur 60% of government expenditure but collect only 40% of revenue.9 All state borrowing is subject to approval from the Union.

The Planning Commission, with its mandate of centralized planning, emerged as a critical instrument for centralizing India’s fiscal system. To illustrate, calculations by the 14th Finance Commission reveal that between 2005 and 2012, central government spending on state subjects increased from 14% to 20% and that on concurrent subjects increased from 13% to 17%. The bulk of this expenditure took place through specific-purpose transfers or Centrally Sponsored Schemes (CSSs) financed and monitored through the Planning Commission’s plan funds, making CSSs one of the most important vehicles of central transfers to states. To illustrate, during the 11th Five Year Plan (2007-2011), scheme-specific transfers accounted for over 40% of central transfers to states. Importantly, these schemes, as argued comprehensively by Avani Kapur in this volume, were designed and implemented in an extremely centralized, tightly controlled, one-size-fits-all architecture that undermined state flexibility.

States have long complained about fiscal centralization. From as far back as the 1969 National Development Council meeting to consultations with the 14th Finance Commission in 2013, state governments have argued strongly against the centralized nature of CSSs and encroachment by the Centre on the constitutional mandate of state governments. Chief Ministers, in particular, have resented having to seek Planning Commission approval for state plans. Several commissions noted the negative consequences, as articulated by state governments, of the proliferation of CSSs and recommended reduction in their quantity and greater flexibility in their
design. This deep centralization coupled with the fact that the post-liberalization era had rendered the centralized planning process irrelevant made the need for reforming (and even dismantling) it urgent and critical.

The setting up of the NITI Aayog and the implementation of the recommendations of the 14th Finance Commission to enhance fiscal devolution to states marked an important juncture in fiscal federal relations in India. However, it also brought to the fore an important new fault line in the centralization vs. decentralization tug of war that has shaped the dynamics of fiscal federalism in the country. The future shape of federalism in India will depend significantly on how the new government navigates this fault line and the institutional space it creates for re-negotiating Centre-state relations.

The primary challenge for fiscal federalism in India comes from the country’s growing regional disparities or what has been recently identified as India’s ‘developmental imbalance’. Governance capability is the primary driver behind these expanding disparities. To illustrate, a study that ranked governance performance (defined as public service delivery) of 19 major states in 2001 and 2011, highlights the large and persistent development distance amongst states in terms of per capita income and service delivery outcomes. In infrastructure, the density of state highways in Karnataka, at 10.8 km per 100 sq km, was five times that in Odisha at 1.95 km per 100 sq km in 2011. Power availability in Bihar in 2011 at 117 kWh was three times higher than 36 kWh in 2001, but it was still only 1/15 that of Gujarat at 1559 kWh. In the social sectors the literacy rate of Bihar in 2011 at 47% was only about half that of Kerala at 91%, while the infant mortality rate of 91 per 1000 newborns in Odisha in 2001 was nearly nine times the rate in Kerala. Importantly and unsurprisingly, governance (bureaucratic capacity and decision-making processes) is the critical ingredient for moving the needle on service delivery improvements in low-income states like Bihar and Madhya Pradesh. This exposes, as the study argues, a critical tension between high-income states and low-income states. High-income states have the capacity to design and implement their own schemes and can better leverage fiscal decentralization. Low-income states need CSSs, with their centralized design and implementation structure, simply because they lack planning capabilities.

The Planning Commission, with its plan funds and CSSs, played an important (albeit imperfect) role in responding to these governance deficits by designing and financing (through plan funds) schemes linked to core public services. And for all its flaws, it gave states (through the National Development Council) access to an institutional space for debating and exercising some leverage over plan funds. Moreover, the Planning Commission played a critical coordination function. CSSs, linked to plan funds, were administered by line departments but the Commission played a critical policy coordination function, linking schemes to state plans and determining resource availability. Further, the five-year plans and plan allocations enabled states to broadly predict the quantum of plan funds they were likely to receive, ensuring somewhat predictable expenditure over a five-year cycle. With the disbanding of the Planning Commission, this role has been taken over by the finance ministry and line departments. As a result, the last five years have arguably witnessed an even greater centralization of schemes. In fact, recent analysis of state budgets highlights that in the last few years, the share of central schemes as a percentage of overall central expenditure has increased from 9% (for Central Sector/CS and CSSs respectively) in 2016-17 to 12% (CSSs) and 9% (CS) respectively.

The response to the institutional vacuum left behind by the dismantling of the Planning Commission cannot be one of simply reintroducing the planning and budgeting functions of the Commission, albeit with greater flexibility to states. This is because despite their intent, CSSs as an instrument have been unable to effectively respond to the challenge of regional disparity. Low-income and weakly governed regions are simply unable to utilize CSS funds. As central schemes increased in the last two decades, central spending increased in richer rather than poorer states. In 1990-91, CSS and CS spending accounted for 1.22% of total expenditure in Gujarat and 13.9% in Rajasthan. This reversed in 2013-14. Spending in Rajasthan dropped to 3.2% and...
increased in Gujarat to 13.12%. This trend is even more acute at the district level. Based on an analysis of six key schemes, the 2016 Economic Survey highlighted that India’s poorest districts received barely 40% of the total funds allocated to a state.\(^\text{16}\)

The primary fault line in India’s fiscal federal architecture is this: fiscal centralization, arguably critical for poorer states, has in fact benefited richer states. Addressing this challenge will require a significant overhaul of existing financial instruments available with the central government. Specifically, it will need a careful rebalancing of the centralization vs. decentralization dynamic in ways that provide necessary governance support to poorer states while ensuring fiscal autonomy. Crucially, the Centre needs to reorient its role from being a micro-manager of schemes and programmes to playing a far greater strategic role, building national policy frameworks and providing technical capacity to states to enable and empower them to plan, design and implement social policy programmes. Balancing these tensions and reshaping the role of the Centre requires the creation of institutional spaces for Centre-state deliberations. This can be achieved through a revitalized Inter-state Council (ISC) tasked specifically with creating a deliberative space for Centre-state dialogues on welfare policy and negotiating the tensions that have come to shape Centre-state fiscal relations. The 14th Finance Commission had recommended the creation of such a body. The new government must implement this recommendation with urgency.

Welfare policy in India is poised at a critical juncture. Reforms of India’s welfare architecture over the last five years present new challenges and fault lines that need resolution, if India is to move towards creating a new 21st century welfare architecture. India doesn’t need new schemes; rather, it needs consolidation and balancing between competing welfare strategies. Getting this right will require significant investments in state capacity. This is the welfare task for the new government.

END NOTES

1. DBT leverages Aadhar and banking penetration to move money directly into beneficiary bank accounts.
2. Universal Basic Income: A Conversation With and Within the Mahatma (pp. 173-212). New Delhi: Govt. of India, Ministry of Finance, Economic Division.
15. Ibid, 22.
The PM-KISAN (Pradhan Mantri Kisan Samman Nidhi) scheme, announced in January 2019 and expanded in this government’s first cabinet meeting, is the first major Union government income support scheme. States, notably Telangana and Odisha, have introduced such schemes earlier. How should PM-KISAN be taken forward?

The move to cash

Several direct benefit transfers, cash transfers and income support schemes have been both discussed and implemented at the national and regional levels in the last few years. Direct benefit transfers involve replacing generalised subsidies with traceable targeted cash, e.g., the PMUY’s transfer of a subsidy per cylinder of LPG to a designated bank account, vis-à-vis the earlier subsidy per cylinder, leading to a low price for all.

Cash transfers can be of three main types. The first is (i) replacement for in-kind transfers, e.g., school vouchers or food stamps instead of public education or public distribution of foodgrain – such cash can only be spent on specific items of expenditure. The second is (ii) conditional cash transfers, where use is unrestricted, but its receipt is conditional on observable actions by the household, e.g., sending children to school, getting them vaccinated, etc. or characteristics of the individual, e.g., old age pensions. The third type, i.e., (iii) an unconditional transfer of cash, is an income support scheme.

Objectives of PM-KISAN

An individual can receive income support for a variety of reasons. PM-KISAN could have two objectives (i) to compensate for inefficient capital markets, e.g., enable timely purchase of agricultural inputs without high-cost borrowing, and (ii) as a supposedly more efficient anti-poverty measure. These are feasible objectives to focus on. In the first case, the transfer amount would depend on agricultural expenditures involved. With the
second, the choice is between trying to compress the income distribution, by targeting larger support to the bottom of the distribution and a less informationally demanding “rising tide lifts all boats” design—which appears to be PM-KISAN’s choice—and possibly justification for the relatively small transfer, compared to state schemes.

Quasi-universality – minimal targeting

The advantage of keeping the income support low, i.e., not very large in relation to rural income in the bottom quintile, is that the number of beneficiaries can be large—and the scheme quasi universal. It also reduces the incentive of excluded households to try and game the system and become beneficiaries. PM KISAN’s amount of Rs. 6000 per family in three instalments is about ten percent of family expenditure for the bottom rural quintile. However, this amount, especially in three instalments, may be ineffective in easing borrowing constraints for farm inputs and PM-KISAN should thus be seen as primarily an anti-poverty tool.

It is instructive to compare PM-KISAN with Odisha’s KALIA scheme. First, like KALIA, PM KISAN’s transfer is invariant with respect to landholding—which imparts a certain progressive character to the transfer, unlike Telangana’s Ryuthu Bandhu. Second, if it is implemented the way it is in Odisha, it may not exclude many households. Many agricultural labour households, who are the largest group of poor likely to be excluded if the scheme only targeted farmers, can still be beneficiaries if even those with tiny amounts of landholding are included, as in KALIA. However, it is not clear how the beneficiary selection, which is a state function, is occurring and will occur in PM-KISAN.

The share of landless households—those with less than 20 square metres of land—varies considerably across states. While, in 2013, it was 5.4% in Odisha (considerably less than the national average of 7.4%) it was more than 20% in Uttarakhand, 15% in Andhra Pradesh, more than 12% in Gujarat and Maharashtra and more than 10% in Karnataka. Will these households be included in PM-KISAN? The answer is not clear. That said, it is also possible that many of these landless households are non-agricultural workers living in rural areas—not landless labourers.

To ensure that the landless are included, in addition to the transfer to farmers, KALIA also has a support scheme for those engaged in non-farm work. Its design is somewhat restrictive, but it includes a limited number of livelihood activities for which support is provided.

Beneficiary Database

Operationally, the use of exclusion instead of inclusion criteria is preferable, but the underlying database used for implementation is of major importance. The quality of the database would depend on the extent of information available to the enumerators and how frequently it can be updated—both of which point to the local government as the preferred locus of implementation, a coordinated instead of centralised data repository. This does run the risk of over inclusion, but if the income support is not excessive and the exclusion criteria are clear and designed to only exclude the upper tier of local elites, this risk should not be very large.

The extent of targeting is both a matter of design and of implementation: what criteria and who chooses? In Odisha, the list of beneficiaries was prepared at the local level and then pruned at upper bureaucratic levels, using a variety of secondary databases relating to land ownership and employment (government employees were excluded). It claims it was able to exclude large farmers, because it had previously built a land records database and a foodgrain procurement database that required land ownership data to prevent round-tripping sales. In the latter database, the incentive is to show a higher amount of land, so that the household is able to sell a higher amount of food grain to the procurement agency. Linking the two databases created a list of large landowners, who could be excluded. This shows the importance of existing state capacity and prior action in successfully implementing new income support schemes. In states where such groundwork has not been laid, PM KISAN
could have catalysed the building of that capacity, and improved on the use of the databases used for the initial implementation of PM-KISAN.

However, in the PM-KISAN scheme, such databases are now no longer needed, since the landholding ceiling has been removed and there is only an exclusion criteria related to employment. One hopes that at least one collateral benefit of the PM-KISAN scheme will be a verified database of state government employees (the excluded category).

A pertinent question to ask would be whether the trade-off—reduced administrative costs and minimal targeting errors of exclusion by expanding the scheme to larger landowners, vis-à-vis an increase in the amount for the original beneficiaries—is worth it for a primarily anti-poverty scheme.

**MGNREGS vs. PM-KISAN**

Does PM-KISAN make MGNREGS, which despite its initial scepticism, has continued to receive support from government, redundant? Should the MGNREGS budget be diverted to PM-KISAN? A major advantage of the design of MGNREGS is that it is well targeted, due to self-targeting. A beneficiary is required to perform relatively unpleasant work for relatively little money—as such, those who have other opportunities for employment will choose not to seek benefits under MGNREGS. It thus targets agricultural labour households, more than cultivators, and is complementary to PM-KISAN; though agricultural labour households could also receive income support from PM-KISAN, as explained earlier, if farmers with micro-holdings are included in the list of beneficiaries.

Another collateral benefit is that the MGNREGS wage can act as minimum wage support for the broader workforce. For this to be effective, workers must be reasonably sure of obtaining employment through MGNREGS. In India, where a large number of rural residents are not land owners or land leasers, but farm and non-farm labour, e.g., in brick kilns, etc., this wage support function of MGNREGS can help many beyond its direct beneficiaries. A wage floor can lead to more political support for MGNREGS, from labour, but it can also lead to determined opposition from employers, especially if productivity gains (e.g., from efficiency wages) do not result from an increase in wages.

However, this self-targeting feature is not costless. If the beneficiary has to give up other work to benefit from MGNREGS, the net benefit to the beneficiary is reduced. In addition, there is material cost, since employment is generated by building an asset, like a pond or a road, which needs material beyond labour. In return, one gets an asset—but is it a durable quality asset, necessary in its context?

While previously, many MGNREGS assets were public assets, a large majority of them are now built on individual farms of small or SC/ST farmers, e.g. farm ponds, livestock sheds or houses. There is thus, a strong incentive to monitor quality. This also means that there may be considerable overlap with the beneficiaries of PM-KISAN. In that respect, MGNREGS and PM-KISAN are complementary in a different sense—in that it may improve use of the infrastructure built on individual farms through MGNREGS and, potentially, raise local demand for agricultural labour.

The case for replacing MGNREGS with PM-KISAN is therefore weak.

However, in order to fully leverage the complementarity to MGNREGS some inter-linked steps need to be taken to improve MGNREGS implementation. Key amongst these are:

**a) Matching budget provisions to demand:** While, in the last five years, the government significantly enhanced MGNREGS allocations, these were still not sufficient to meet pending liabilities, i.e., additional expenditure incurred by States over and above budgetary allocations. According to data analysed by Centre for Policy Research’s Accountability Initiative, this amount rose from Rs. 724 crore in FY 2014-15 to Rs. 5,932 crore FY 2018-19 (till December 2018).
b) **Paying Wages on Time:** An important consequence of pending liabilities is delayed wages—a long-standing problem which is worsening. Recent changes in payment mechanisms—ostensibly to reduce corruption, including linking payments with Aadhaar—have served to exacerbate this problem (Dreze, 2017). The primary delay occurs after administrative paper work is completed, when funds are to travel to the State government account and onward to beneficiaries.

c) **Linking wage payments to state minimum wages and rural inflation:** Another consequence is stagnant wages. Since 2017, MGNREGS wage hikes have been 2.7% in 2017 and 2.9% in 2018 (Indian Express, 2018). Moreover, according to CPR's Accountability Initiative's analysis more than half the states in 2016-17 paid an average wage that was less than the notified wage rate. We think that the government should reconsider its decision to accept the recommendations of the Nagesh Singh committee delinking MGNREGS wages from state minimum wages.

Taken together, this weakens the ability of the MGNREGS wage to act as wage support for the broader workforce—a benefit that goes beyond the direct beneficiaries. Unless work is available on demand and wages are paid on time, the wage floor is rendered ineffective.

d) **Strengthening the role of Gram Panchayats in asset creation:** Early in its previous term, the government sought to ensure that assets created were durable and effective. The primary approach was to emphasise “convergence” by linking assets created under MGREGS to other asset creation programs. Prominent amongst these are rural housing and sanitation schemes. While, in principle convergence is likely to improve overall efficiency, in the specific context of MGNREGS, this has served to undermine the legally mandated role of Gram Panchayats. The design of MNREGS is a unique opportunity to alter the implementation architecture for rural service delivery by devolving 50% of the funds to Gram Panchayats. A critical role envisaged for them was to prepare a shelf of works linking assets to be created under the MGNREGS to locally relevant needs—likely to create better assets than a plan prepared in New Delhi and state capitals. Early studies on the quality of assets created under MGNERCS attest to this fact. However, convergence undermines this role. The emphasis on convergence ought to give way to the harder task of building Panchayat capability—including basic human resources—to develop shelves of work, including assets needed to improve infrastructure on local SC/ST and small farmer lands. This becomes even more salient as rural housing and sanitation is saturated and the need for infrastructure to improve agricultural productivity remains.

Fertiliser and Electricity Subsidies: The case for enhancing PM-KISAN by reorienting fertiliser and perhaps even electricity subsidies is stronger. The amounts involved are larger, the subsidies are regressive (in that larger farmers get more), and environmentally damaging: the overuse of chemical fertilizer harms the soil and subsidised electricity leads to overuse of groundwater. By one calculation eliminating the fertiliser and power subsidy in Punjab in 2013 could have financed an annual transfer of about 92,000 to every cultivator or 50,000 to every agricultural worker. PM-KISAN can be used to transform fertilizer and electricity subsidies into a size-independent cash transfer, which will not only make them progressive, but leave the small farmer better off than before. It will also improve environmental sustainability by spurring growth of reduced-chemical agriculture.

Additional Taxes: The final option is to finance PM-KISAN by using revenue from increased tax efficiency or higher rates. One may want to use this sparingly given the other demands on the budget.

**Safety Net, Not Springboard**

Providing a safety net is just one function for government. In a rapidly growing and aspirational country like ours, we need to also think about reliable springboards to enable rural children and youth access the potential of the modern non-
farm economy. PM-KISAN is a safety net, it is not designed to be a springboard. This still requires large investments in public education and health and it is here that the technology of cash transfers may prove counter-productive.

Income support can occasionally deliver a large bang for the buck, e.g., by easing cash constraints, it can lead to less indebtedness and better price realisations by obviating the need to enter into buy back arrangements at low pre-set prices. It can also encourage diversification of incomes, by enabling investment in non-farm activities and increase household savings by reducing essential expenditure (e.g., by enabling households to buy more from PDS when stocks are available). It can also allow investment in better education for children. Many of these effects are seen in SEWA's Madhya Pradesh cash transfer experiment. Additionally, if fertiliser subsidies are converted into equivalent cash transfers, the savings from low chemical agriculture (as demonstrated in Andhra Pradesh's Rythu Sadhikara Samstha) could again lead to higher levels of household capital accumulation. But, these collateral benefits are not the primary objective of cash transfers.

Moreover, full participation in the modern economy is beyond this. It needs a focus on learning and educational attainment, for which early childhood health and nutrition is critical. A move from free public health care to subsidising broad based tertiary health insurance is essentially a use of public resources for private delivery. Even if it is more efficient, its use for early childhood and primary care is limited. Similarly, school vouchers, right to education mandates on private schools, etc. all tend to absolve the government of its obligation to provide education. This is an entirely untested strategy. Evaluations so far, do not indicate that privately provided education is better; at best, it achieves the same poor outcomes at less cost. No country has managed to have a broad based education for their citizens based on private schools, as we appear to want to do.

Beyond safety nets, if we wish to build a reliable springboard for our children and youth, we will need to build consensus on making resources available and on the mechanisms of delivering high quality basic services such as health and education, safe water supply, etc. Here, cash is not always king.

END NOTES

1. Other reasons include: (i) to allow him or her not do work s/he finds excessively displeasing just to keep maintain a basic minimum standard of living (a question of choice and dignity), (ii) to allay apprehensions that people cannot find work after the advent of Industry 4.0 – a move from temporary short-term unemployment assistance to a long-term, if not permanent, income support, (iii) redistribute income – taxation takes, transfers give, etc. It is clear that the PM-KISAN support is not designed to meet objectives (i) and (ii), nor should it be. We are not at the stage of development where this can be an objective. Nor does (iii) appear to be an explicit objective of this government.

2. See http://pib.nic.in/newsite/PrintRelease.aspx?relid=187508

3. In 2009, Andhra Pradesh paid nearly 68% wages within the stipulated 15 day period. However this number was significantly lower in Rajasthan and MP at 10% and 23% (World Bank, 2017).

4. A study conducted by Rajendran et al in 2017 used administrative data MIS data, to analyse over 9 million transactions across 10 states in FY 2016-17. They found that only 21 per cent of the payments made in FY 2016-17 were made on time. In another study conducted for FY 2017-18, the authors found that only 32 per cent of the wage payments made in the first two quarters of the financial year had been made on time.

Schooling is not Learning

YAMINI AIYAR

India’s children are schooling and not learning. As the recently-released Draft National Education Policy (NEP) states, ‘India now has near universal enrolment of children in primary schools. Gender parity has been achieved and the most disadvantaged groups have access to primary schools.’ Yet, at the current time, there is a severe learning crisis in India, where children are enrolled in primary school but are failing to attain even basic skills such as foundational literacy and numeracy. The harsh reality is this: schooling is not learning. Strengthening education in India requires the new government to recognize the urgency of this reality and the gravity of India’s learning crisis. India needs to ensure, in mission mode, that every child in grade 5 has achieved foundational literacy and numeracy.

Understanding the Problem

India’s learning crisis is a widely acknowledged fact. Since 2005, the Annual Survey of Education Rural (ASER) has served as a repeated reminder that barely 50% of students in standard 5 in India can read a standard 2 text. Several other studies, including the government’s own recently conducted National Assessment Survey (NAS) 2017, point to low levels of learning.

This crisis begins in the early years of schooling. Moreover, learning profiles are flat. In other words, if a child falls behind expected learning levels in the early years of schooling, sitting in classrooms, year after year, and progressing to higher grades does not ensure that the child catches up. Even the simplest skills like reading a simple passage remains out of reach of an alarming number of students. Drawing on a series of rigorous studies of learning profiles in India, economists Lant Pritchett and Amanda Beatty estimate that four out of five children who go into a grade not able to read will finish the grade still unable to read. Even as children struggle with basics, the curricula and associated textbooks are designed in the expectation that children have acquired grade-level skills and can progress onwards. Pritchett and Beatty
refer to the phenomenon as the ‘negative consequence of an overambitious curriculum’.

Additionally, several studies highlight that there are wide variations in student learning levels within a classroom. In the 2018 ASER survey, in the average standard 3 classroom in Himachal Pradesh, 15.5% students could read words but not sentences; another 24% could read a standard 1 text while 47.4% could read a standard 2 text.² The result is a significant divergence between rates of learning and curriculum expectations. Another study by Muralidharan and Singh, with a sample of 5000 students spanning grades 1-8 in four districts of Rajasthan, finds that the average rate of learning progress across grades is substantially lower (about half) than envisaged in the syllabus and curricula. As a result, the vast majority of students struggle to cope and in the process learn very little.³

Against this background the focused, goal-oriented push for achieving foundational literacy and numeracy in elementary schools strikes at the heart of the problem. As the NEP emphasizes, ‘the rest of the Policy will be largely irrelevant for such a large portion of our students if this most basic learning (reading, writing, and arithmetic at the foundational level) is not first achieved’.

Moving from Policy to Action

The NEP offers an important starting point to develop a mission mode, goal-oriented approach to improving foundational skills in India. It also offers a fairly detailed set of powerful policy ideas, from redesigning curriculum to a national tutors’ programme, teacher training and community participation. But achieving these goals is not just about policy direction. Rather, it is about shifting mindsets and changing institutional culture. This can only be achieved through a fundamental overhaul of how elementary education is financed and governed.

The reality is that in its current architecture, the education system is designed and incentivized to cohere around the goal of schooling inputs (enrolment, access, infrastructure) rather than learning. All planning, financing and decision-making systems are aligned to this goal. To illustrate, annual plans, targets and budgets are delinked from the articulation of learning goals. Instead, they are based on infrastructure goals determined through U-DISE (Unified District Information on School Education), a specifically created database for critical education indicators other than learning. Recent efforts to measure learning outcomes at the district level, such as the NAS, are not integrated into the planning and budgeting cycle. As a result, plans have little to do with learning needs and interventions specific to improving learning outcomes command relatively paltry money. In 2018-19, quality-specific interventions accounted for a mere 19% of the total Government of India (GoI) budget for elementary education.⁴

Schooling goals inevitably privilege hierarchical, top-down delivery systems that seek accountability through easily verifiable, logistical targets (number of classrooms built, statistics on teacher qualifications, etc.). This attitude has permeated down to the classroom. Easy-to-measure metrics, ‘syllabus completion’ and ‘pass percentages’ have held our classrooms hostage. The result has been a deeply centralized education system in which the central government determines priorities, rather than privileging school/student specific learning needs; this leaves the entire education bureaucracy busy collecting information and monitoring targets relevant to New Delhi rather than schools and children.

Altering this schooling culture is not a simple matter of changing syllabi and textbooks, introducing new pedagogy, and improving training. It requires a complete overhaul of the organizational structure and associated incentive systems in which education stakeholders, from bureaucrats to teachers and parents, are embedded. The education architecture needs to move towards a bottom-up, decentralized delivery system, which privileges the classroom and its specific learning needs. This will make the implementation of NEP’s specific recommendations a reality. The transition to a decentralized system can be achieved through the following key reforms.
Improving the Financing of Education

Despite being on the concurrent list, elementary education financing is disproportionately dependent on central programmes. This is because most of the states use the bulk of their own finances (up to 90% in some cases) towards payment of wages and liabilities. Col schemes (such as Sarva Shiksha Abhiyan, now renamed Samagra Shiksha) are thus the only source of funds available to states for non-wage expenditure. These schemes privilege an extremely centralized, one-size-fits-all, schooling-focused planning, budgeting and decision-making system. States, in this architecture, have little room for orienting spending to their specific learning needs.

From tied line-item funding to block grants

The first step towards shifting to an education system that prioritizes foundational learning is to overhaul the GoI financing system. One way is by putting states in the driver’s seat, and providing them with flexible financing aligned to the achievement of clearly articulated learning goals. Specifically, the government should create a new funding window for foundational learning that gives states two untied grants.

The first untied grant would be for states to meet school infrastructure requirements. The Right to Education Act (RTE) mandates that all states meet a set of infrastructure and teacher norms. States should estimate their infrastructure requirements over a three-year period, which the Centre can fund annually.

The second grant should be a formula-based, untied learning grant financed over a period of three to five years. Funding through this window should be based on a long-term learning strategy articulated by state governments and linked to clearly articulated annual learning goals. Since this is an untied grant, the Centre will no longer need to busy itself with negotiating line-item expenditure. Rather, it can focus on providing technical support and guidance to states.

From an annual to a three-year planning and funding cycle

In the current annual government financial and administrative cycle, it takes a minimum of six months — usually up to November (well into the school year) — for money to move and new programmes to be implemented. This is a result of long administrative processes linked to getting plans and projects approved, procuring materials and finally ensuring funds reach their final destination. Studies by CPR’s Planning, Allocations and Expenditures, Institutions Studies in Accountability (PAISA) point out that the bulk of the money usually reaches schools and districts midway (and often at the end) of the annual financial year. Consequently, programmes have a late start, and also an early end to meet year-end financial needs. This needs to change. The planning cycle needs to move away from an annual cycle to a three-year cycle (with annual financial approvals) so states, districts and schools can plan better and ensure continuity in implementation.

Improving the Assessment System

To institutionalize a culture of accountability and ensure that states have access to and utilize regular, reliable data on learning outcomes, a significant effort will need to be made to improve the quality of data collection on learning-related indicators. An important start has been made through the restructured NAS implemented in 2017 and the NITI Aayog’s School Education Quality Index (SEQI). However, there are several gaps. The current tools are linked to the achievement of grade-level competencies. But to be useful, especially at the school level, what they need to capture are gaps in foundational literacy and numeracy. This will enable teachers and planners to assess how far students are from these basic skills. Without this critical data point, states are unable to determine the level at which to orient their learning levels. In sum, for assessments to be useful in addressing the learning crisis, they need to be aligned to foundational learning skills and not grade-level learning outcomes. Further, the quality of data collection needs to improve. The NEP has recommended setting up a Central Education Statistics Division. This recommendation must be implemented urgently.
Moving beyond States to Districts and Schools

An education system decentralized to states is simply too large to effectively respond to the diversity of learning needs in school and classrooms. In recognition of this, education policy has, on paper, made the district the unit of planning. However, traditionally, districts have little flexibility in making plans or control over budget. If the education system is to genuinely move towards a focus on classrooms and students, this has to change. Just like states, districts too ought to articulate learning goals over a period of three to five years, and have the flexibility to develop plans to meet these goals. To incentivize districts, GoI and states could create a learning improvement fund that interested districts could compete for. However, doing this will require a massive capacity building effort by the state and Centre to empower districts to make plans. An interesting parallel is Kerala’s People’s Plan of 1996 in which the state planning board launched a year-long campaign to work with the Panchayati Raj system to develop the first ever ‘people’s plan’. The central government could create a small capacity building fund for states to develop a similar plan campaign. Of course, an effort such as this must not be restricted to districts, and should be extended to schools and parent-led school committees as well.

Teaching at the Right Level

Indi’s learning crisis has two challenges. The first is to ensure that students entering the school system do not fall behind in the first place. An important suggestion in the NEP that must be implemented is to integrate pre-school learning with the formal elementary school system. Further reforms related to curricula and teacher recruitment, training and performance management will likely help redress problems encountered within schools.

However, the second and arguably greater challenge relates to students already in school, many of whom desperately need to catch up. For this cohort of students, there is today a significant body of evidence suggesting that efforts to match classroom instruction to student learning levels (rather than the traditional age-grade matrix), or ‘teaching at the right level’, implemented in mission mode, can result in significant and relatively speedy gains in foundational learning levels. Many state governments and even individual districts today are beginning to experiment with implementing versions of teaching at the right level (TARL) in their schools. These efforts need to be supported and scaled up with both technical and financial resources. To do this, a specific FLN fund and technical partners at the GoI level could be established for districts to draw on to implement the TARL initiative. This could be linked to the NITI Aayog’s Aspirational District Programme to ensure high-level buy-in and institutional convergence at the GoI level. Efforts to assess foundational learning levels, using ASER-like tools, are already underway. These need to be scaled up now.

From Assessments to Learning and Doing

One of the most damaging consequences of a centralized, schooling-focused implementation system is that it has undermined the professional roles of teachers and school-level administrators, casting them as passive rule followers, collecting data and implementing orders from the top. It isn’t uncommon for teachers in schools to describe themselves as mere clerks in an administrative system, taking them away from their primary teaching responsibilities. This view is reinforced by the fact that the career ladder for teachers – as they move to becoming headmasters, cluster- and block-level officers, and finally district education officers – is primarily focused on administration rather than supporting teaching/learning. Recognizing this problem, the NEP pushes for reducing administrative work and improving teacher training and support infrastructure.
But these reforms will only work if they are accompanied by a significant cultural shift in how education reforms are debated and implemented. This shift must place teachers and frontline officers at the centre of the attempt to reshape classroom pedagogy. Consider this: in the last three years, significant efforts have been underway to move the needle on measuring learning outcomes. These include the NAS and SEQI referred to earlier. However, none of these assessments are geared towards the teacher or frontline administrators — such as the cluster resource centre coordinators and block resource persons charged with mentoring and providing academic support to teachers. These assessments thus merely function as tools for monitoring performance rather than as diagnostic tools that can strengthen the pedagogical support structure for teachers, motivate them and assist them in improving teaching practices. For teachers and frontline administrators, this merely reinforces the view that they are no more than disempowered cogs in the wheel, primarily expected to follow orders and complete administrative tasks.

Evidence from a number of experiments, most recently in Uttar Pradesh where teachers are using mobile apps to review and track progress of student outcomes on a regular basis, shows the way. It suggests that one way of moving the needle on teacher motivation, and reasserting their primary professional identity as teachers charged with imparting learning to students, is by empowering them with data and enabling them to use this data in their classrooms. This also ensures that academic support staff have the tools to engage in a meaningful discussion with teachers on how to improve learning in schools. Building on these experiments to use technology and empower teachers with student assessment data in meaningful ways can go a long way in improving learning in schools. There is an urgent need to recast the assessment of learning outcomes as a diagnostic tool that teachers can and should use, from its current role as a mere monitoring tool for the central and state governments. This is arguably the most important reform that must be institutionalized if India is to move towards the goal of universal acquisition of foundational literacy and numeracy skills in the next five years.

END NOTES


3. Muralidharan and Singh, ‘Learning levels will not improve.’


The Numbers Game: Suggestions for Improving School Education Data

KIRAN BHATTY

In the context of the declining quality of public education, governance has emerged as an important explanatory variable, quite distinct from the education variables more commonly cited, such as teaching and learning practices or curriculum and textbook quality. An important component of the governance architecture in any sector is its information and data regime, as all aspects of monitoring, planning and policymaking are dependent on it. A look at the data system in the education sector in India reveals that there is much amiss at all levels of data collection and use.

This is not to deny that compared to a couple of decades ago, considerable energy and investment have gone into building a regular school-based decentralized data collection system in India. This District Information System for Education (DISE), set up after Sarva Shiksha Abhiyan (SSA) was launched in 2001, and now called Unified-DISE (U-DISE), collects data from 1.5 million schools (government and private) and provides report cards up to the secondary stage for every state, district and school. It is remarkable that this data is compiled and School Report Cards prepared and uploaded on the website on an annual basis. Education data from households is also being collected by Panchayats and compiled annually in Village Education Registers. A few states have supplemented this with data from Child Tracking Surveys, which enumerate the population of school-going children. In addition, the Ministry of Human Resource Development (MoHRD) commissioned three rounds of household surveys in 2006, 2009 and 2014. The SRI-IMRB surveys, as they are called, collect information on children in the age group 6-13 years who are out of school. Other large household data sets have emerged too, in addition to the National Sample Survey (NSS) and Census, such as the National Council of Applied Economic Research’s (NCAER) Indian Human Development Survey (IHDS-I, 2004-5 and IHDS-II,
2010-11), the Annual Status of Education Reports (ASER) since 2005, and now the Socio-Economic Caste Census (SECC). All of them provide data on education indicators and school participation in some form.

However, in the midst of this ‘feast’ of data sources, we get varied, often contradictory evidence on basic indicators such as the proportion of children out of school, the extent of improvement in retention levels, the learning outcomes and the quality of education. Even in areas of education finance, such as teacher appointments and salaries, we do not have an authentic database. Hence, despite the fact that the coverage and scope of data collection by the government has increased enormously with many more indicators added, nagging questions remain about the quality, utility and purpose of the data, with obvious implications for planning and policymaking.

Further, with multiple sources of data – both governmental and non-government – in operation, data neutrality also cannot be assumed.

This paper highlights the methodological as well as administrative anomalies in the system, and points to the need for greater decentralized management of data as well as collaboration across agencies for purposes of standardizing definitions and methods of estimation. It further emphasizes the need for public verification of data to ensure authenticity as well as validation across sources to reduce bias.

**Methodological Discrepancies**

**Definitions and Methods of Estimation**

The methodological difficulties begin with the range of definitions and methods of estimation used for important indicators by different government and non-government agencies collecting data. For instance, estimates for out-of-school-children (OOSC), all collected through household surveys, are based on different ‘questions’ asked by investigators employed by each source. The NSS, for example, asks, ‘How many children are currently attending school?’, while the Census enumerators ask questions related to ‘status of attendance in an educational institution’. The MoHRD survey, on the other hand, claims to follow both the sampling and methodology used by the NSS, and yet arrives at vastly different results. The NSS and MoHRD surveys, which are based on a sample, then extrapolate from their figures the proportion of children that are out of school as a percentage of the population of children in that age group. Using this method, the NSS 71st round (2014) has pegged the figure at a little less than 10% of the child population, amounting to nearly 20 million children, while the MoHRD (SRI-IMRB, 2014) estimates put it at 3% and thus approximately 3 million! The 2011 Census, on the other hand, suggests that more than 15% children in the same age group do not go to school, thus giving us a widely differing figure of almost 40 million.

Similarly, the figure for the total number of teachers in a school turns out to be not as simple a statistic as it sounds, with teachers being routinely sent on deputation to other schools. Thus, it is unclear whether a teacher who is on deputation from another school is to be counted in her current position or in her original school; or does she end up being counted in both? Similarly, information on the employment status of teachers has only two categories in the DISE format – regular and contract – whereas multiple categories that do not fit precisely into these categories also exist (voluntary, assistant, etc.), resulting in highly inaccurate data being collected on such an important indicator.

Other gaps in the data collected include: information on salaries paid out by each state to the different categories of teachers and measures of learning outcomes on a regular basis. The problems are compounded by the fact that formats for collecting data are designed centrally and do not take into account local specificities; nor are teachers – often the primary data enumerators – adequately trained to fill the formats.

**Validation and Verification of Data**

Another aspect of data credibility that has proved to be a weak link in the data collection process is verification and validation of data. While the rules for DISE dictate that 10% of the sample be randomly cross-checked, DISE itself is unable to verify that this process is either regularly or adequately carried out, due to lack of capacities available at the frontline for the process. In addition, the education departments
ignore the evidence presented by other government or non-government sources to validate and thus improve the credibility of their data. Data validation faces some mundane difficulties as well, related to different methods and time periods used for estimating different indicators by the agencies that collect data. For instance, the Right to Education (RTE) Act talks about children between 6 to 14 years age, but practically all data agencies (except those under MoHRD) use different age groups when compiling education data, making comparison quite difficult. Similarly, the dates and periodicity of data collection vary across sources. ASER is an annual survey; NFHS followed a six-yearly pattern initially but has now slipped to 10 years since the last survey. IHDS thus far has maintained a gap of six years between its two successive surveys. While NFHS-3 and IHDS-1 roughly cover the same period (2004-5 and 2005-6), neither corresponds to the Census dates, but IHDS-2 (2011-12) does. NSS also follows a different time period for its education surveys.

Administrative Anomalies

The Purpose of Generating Data

Different agencies plan their data collection for different (and specific) purposes, and not necessarily for planning or monitoring education and hence for education policy. For example, the education rounds of NSS are part of the survey on social consumption, which in turn seeks to assess the benefits derived by various sections of society from public expenditure incurred by the government.4 The population census, on the other hand, is the primary source of basic national population data required for administrative purposes and for different aspects of economic and social research and planning.5 The non-government sources also have unique purposes in mind, again not necessarily with education as the primary objective. Thus, NFHS is essentially a health and nutrition survey that also collects data on select education parameters. Similarly, IHDS is geared towards the larger goals of human development and poverty, especially the links between education, skills and livelihood. Only ASER is solely dedicated to education, specifically learning levels. However, it does not tell us how the levels of learning vary with student enrolment or attendance, or any household factor.

What is more surprising is that even the data collected by MoHRD and state education departments, though admittedly for the purpose of monitoring and planning education, is not geared towards policy goals. Instead, data collection and analysis are guided by their use in taking stock of the provisioning of schools, rather than as a mirror of their functioning. Unsurprisingly, therefore, school surveys focus on collecting information related to (i) broad indicators of infrastructure and teacher availability; and (ii) student enrolment and distribution of incentives. Both these sets of data showcase administrative efforts rather than education progress. Even the household survey (MoHRD’s SRI-IMRB) is used only for estimating OOSC. No effort is made to use disaggregated data to understand the problems of specific groups of children or schools.

A second conundrum associated with the purpose and use of education data relates to the fact that planning and policymaking are extremely centralized processes. Thus, data – however collected – plays a limited role in the planning and policy processes. For instance, the Project Approval Board at the MoHRD that approves...
annual plans and budgets (AWP&Bs) for the states does so on the basis of the finances allocated to it by the Ministry of Finance and the norms of expenditure specified by the central ministry (MoHRD). While the AWP&B for a state reflects the needs of the state, eventual allocations differ widely from it, as they are based on what is made available by the Ministry of Finance through processes that do not involve the education sector. Of course, state plans are themselves based on a process of aggregation that does not involve a genuine decentralized planning process. This is evident from the fact that dissemination strategies are not aligned with the goals of decentralized planning, as data is largely unavailable in usable form at the local or school level. In fact, local data management systems are virtually non-existent, putting paid to the idea of decentralized planning. Thus, while it is true that schools are now asked to prepare their plans through the School Management Committees, in fact what is submitted by them are copies of the DISE format—presumably as indicative of the status of schools and thus reflective of their needs! Eventually, therefore, at the district level—and probably also at the state level—DISE data is referred to for determining the state AWP&B.

**Limited State Capacity**

A second and perhaps overarching problem confronting the data regime in education is that of limited capacities to design, collect, analyse and use data throughout the government structures, from the central to the local. DISE is run almost entirely on the shoulders of data entry operators of the education departments at the district and block levels. Data that is collected from the ground up amounts to a process of simple aggregation resulting in the loss of specifics, such that by the time it reaches the central level, it barely reflects the ground realities and can hardly serve the needs of the people. The aggregation itself is still done manually at the block level in many states with digitalization appearing only at the district level. Further, implicit in the collection process is a conflict of interest, especially with DISE data as it is entirely dependent on formats filled by teachers. It is well established that teachers might be incentivized to represent information in ways that inflate facts, such as student enrolment. In addition, the departmental staff at the state level have not acquired the understanding, through their own qualifications or through training provided by the government, of the relevance and importance of quality data or its use in the planning or policy process. For instance, innumerable formats are designed for monitoring schools, but none of that data is put to any use. In fact, it is not even referred to in the monitoring or review meetings held at the block and the district. Unfortunately, the personnel involved in collecting and collating that information are themselves unable to gauge its importance as they see it as simply a chore—of ‘filling formats’. With the import of the data completely lost on them, they are unable to use it in a constructive fashion, making the entire exercise redundant.

**The Way Forward**

The new draft National Education Policy, 2019, in recognizing the paucity and limitations of the education data regime, has called for ‘a major effort’ in data collection, analysis and organization. In particular, it proposes the establishment of a new Central Educational Statistics Division (CESD) as an independent and autonomous entity at the NIEPA. It has also suggested the maintenance of a National Repository of Educational Data (NRED) within NIEPA, which will include specific indicators common to under-represented groups (URGs), in an attempt to track their participation and performance. Building a local data base for drop out and out of school children, using social workers to collect information, as opposed to teachers, is another welcome suggestion. Making State Assessment Survey (SAS) results available transparently to parents, teachers, SMCs members and the community could also add to community participation in the learning outcomes of students, as well as validation of the data and accountability to the people.

Key issues that the CESD and related authorities will nevertheless need to deal with are mentioned below:

(i) Improving definitions, standardizing them across sources, and using improved methods of collection and estimation of basic indicators.
(ii) Developing capacities of the data regime and giving a greater role to data users, especially the education officials at different levels of government ranging from the national to the local. Necessary technical skills, if provided, will enable them to be cautious when collecting data, as also to interpret and use it appropriately, such as when making plans.

(iii) Providing support to monitoring agencies, such as the school management committees, school complex management committees, social audit groups, and education researchers to allow them to publically verify data that is officially collected. This requires building a local data management system—at the level of the school or Panchayat or School Complex—that has more than out of school data, as proposed by the NEP, and is publicly available. It would go a long way in facilitating not just local monitoring but also the development of school development plans. In the current situation, the lack of computing facilities at the local level inhibits the maintenance of data, as paper records tend to be poorly maintained and not updated. As a result, even the information that is generated in the school is sent up to the next level for digitization at a higher level where computing facilities are available, at the district or block level, as the case may be. The digitized information however, does not flow back to the school, for the same reason. As a result, no institutional memory is built up for purposes of tracking change or progress in a school. Ideally the format should be verified, by the parents and larger community, before being sent up to ensure accuracy.

(iv) Reducing bias by validation through the use of multiple data sets. Validation of data against different sources, especially in the case of data used for policy, can ensure that bias is factored in and therefore a more judicious use of data is effected. Multiple data sets have other uses as well. For instance, while any single data set cannot collect information on all relevant issues, data collection is known to be a very expensive and time-consuming process. Thus, information collected by NSS on household expenditures—which demonstrates that 70% of all OOSC in urban areas are concentrated in the lowest quintile, while in rural areas they are in the lowest two quintiles—is relevant information that can and should be used by the education department without having to repeat the exercise. Similarly, NFHS data provides linkages between education participation and family health, also of importance to the education department.

(v) Making better use of data through proactive collaboration of different government and non-government agencies. For instance, if household and school data were available in the same portal, it would maximize their use. Similarly, if the NSS education rounds were better coordinated, along with standardization of definitions of important indicators, it would greatly help in serving the cause of education goals. Streamlining the planning process to enable planning based on decentralized data will go a long way towards improving the use of data at the local level as well as ensuring a more genuine decentralized planning process.

END NOTES

1. U-Dise or Unified-DISE is a database of all students from grades 1 to 12.
2. Non-government sources do not collect information on this variable at the national level.
3. It is common to send a teacher appointed to a particular school to another, if there is a shortage in the other school. While shortages exist in a very large number of schools, such deputation typically takes place if the demand for more teachers is raised loudly enough or the political configuration is such that the school is able to draw a teacher towards their school, typically creating a shortage in the school from which the teacher is deputed!
6. See Bhatty, Saraf and Gupta, ‘Out-of-school Children in India: Some Insights into What We Know and What We Don’t’, Economic and Political Weekly 52(49) (2017)