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Economic Planning in India
Did We Throw the Baby Out with the Bathwater?

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Abstract

India has a long and checkered history of planning with some success but many failures. Despite India's federal structure India's approach to planning has been top-down with the union government controlling many levers – financial and otherwise to determine the direction of the economy and social programs. India has tried 3 types of planning – "directed planning", "indicative planning" and now just a "strategy but no planning". India needed to replace the Planning Commission but not give up on planning altogether. Just as the rest of the world was going back to a "new planning" surge to handle climate change and the desire to meet the SDGs, India abolished planning altogether. The successor to the planning commission - the Niti Aayog needs to get back to "new planning", that is now being adopted by many countries with stronger leadership. A legitimised authorising environment and effective use to plan can help India achieve the SDGs by 2030 and become a prosperous country by 2047.

Keywords: Indian Planning, Niti Aayog, SDG, Climate change, "new planning"

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I Introduction

In this paper, we examine what role planning systems and their efficacies have played in delivering different socio-economic outcomes. The three distinct types of planning – "directed planning", "indicative planning" morphed into what could be described as "prescriptive planning "and now just a "strategy but no planning". India offers a mix of experiences from which to draw lessons.

It is difficult to disentangle the role of planning and planning systems from broader economic policy choices in determining socio-economic outcomes. India followed a policy of import substitution with state-led development in its first four decades of development from 1950-1990. But then starting in 1991, India changed course and opened considerably to the world allowing the private sector to play a much bigger role in the economy. It also shifted its approach to planning from more directed planning to indicative planning and finally since 2018 to no overt planning.

Despite India's federal structure, India's approach to planning and managing its economy has been top-down. Whether this has served India well will be examined in this paper.

Finally, the paper will try to assess where India stands today – with no overt planning and whether this approach serves India well given its stage of development and with huge challenges – especially climate change and increasing inequality – that confront its policymakers. India abolished planning just when the rest of the world was seeing a resurgence in planning. The paper argues for a thoroughly revamped Niti Aayog, with a return to new planning systems, with much stronger political leadership, greater intellectual capacity and authorising (but not necessarily financial) powers over union and state plans.

II: History of Indian Planning and Its Efficacy

India's long history of planning, starting well before independence, has made seminal contributions to the concepts of planning. However, India's planning systems have had, at best, mixed success in helping India achieve economic and social development.

A Brief History

From 1950 to 2017, the concept of planning was carried through the Five-Year Plans, developed, executed, and monitored by the Planning Commission (1951-2014) and the NITI Aayog (2015-2017). Between 1950-65, India shifted to state-led industrialisation, import substitution, and directed planning including industrial licensing. As a result, India's economy grew slowly at around 3-4% GDP growth and poverty increased.[1] From 1965 onwards the focus was on agriculture as food shortages dominated and more populist policies were introduced from 1970 onwards under the slogan "Garibi Hatao" when banks were nationalised.

India's economy started to do better since 1980 when there was some internal liberalisation. But the more sustained jump in economic growth came from the 1991 reforms when India started opening the economy to the rest of the world and did away with industrial licensing in many sectors which allowed the private sector to invest and grow. In line with economic policy India also changed its approach to planning. The 8th Five-Year plan (1992-97) clearly recognised this change when it stated

"In line with the changed circumstances, we have redefined the role of the Planning Commission. From a highly centralized planning system, we are gradually moving towards indicative planning."

This shift was cemented further in the Ninth Five-Year Plan which was put together under Prime Minister Atal Bihari Vajpayee of the BJP. It stated

> "The Eighth Five-Year Plan had explicitly indicated a shift from directive to largely indicative plan...... The planning process today, therefore, focuses on planning for policy so that the signals that are sent to the economic system induce the various economic agents to behave in a manner which is consistent with the national objectives."

As India's growth accelerated and inequalities widened, the Eleventh Five-Year Plan 2007-2012, shifted its focus to more inclusive growth. But as it recognised, it began to infringe heavily through a resurgence in centrally sponsored schemes (CSS) into areas which were the domain of the states "*An important aspect of the Eleventh Plan is that most of the public sector programmes are in areas that are normally in the domain of State Governments ....*"

According to a study done for NITI Aayog by NIPFP, in 2012, there were 147 such schemes initiated by various Central ministries (Rao 2015). In 2013, these schemes were consolidated into 66 and in 2014, after the 14th Finance Commission made the recommendation to increase the tax devolution to 42 per cent of the divisible pool, the Central government consolidated the schemes into 28 and classified them into "Core of the core", "Core" and "Optional" with matching requirements from the States stipulated at 30 per cent, 40 per cent and 50 per cent respectively. But this just meant that each scheme now had many sub-schemes, with even larger matching funding requirements. As a result, indicative planning began to look more like "prescriptive planning" and created huge resentment amidst states. A typical district administrator does not know how many programs are being implemented in his/her district, let alone how well they are delivering.

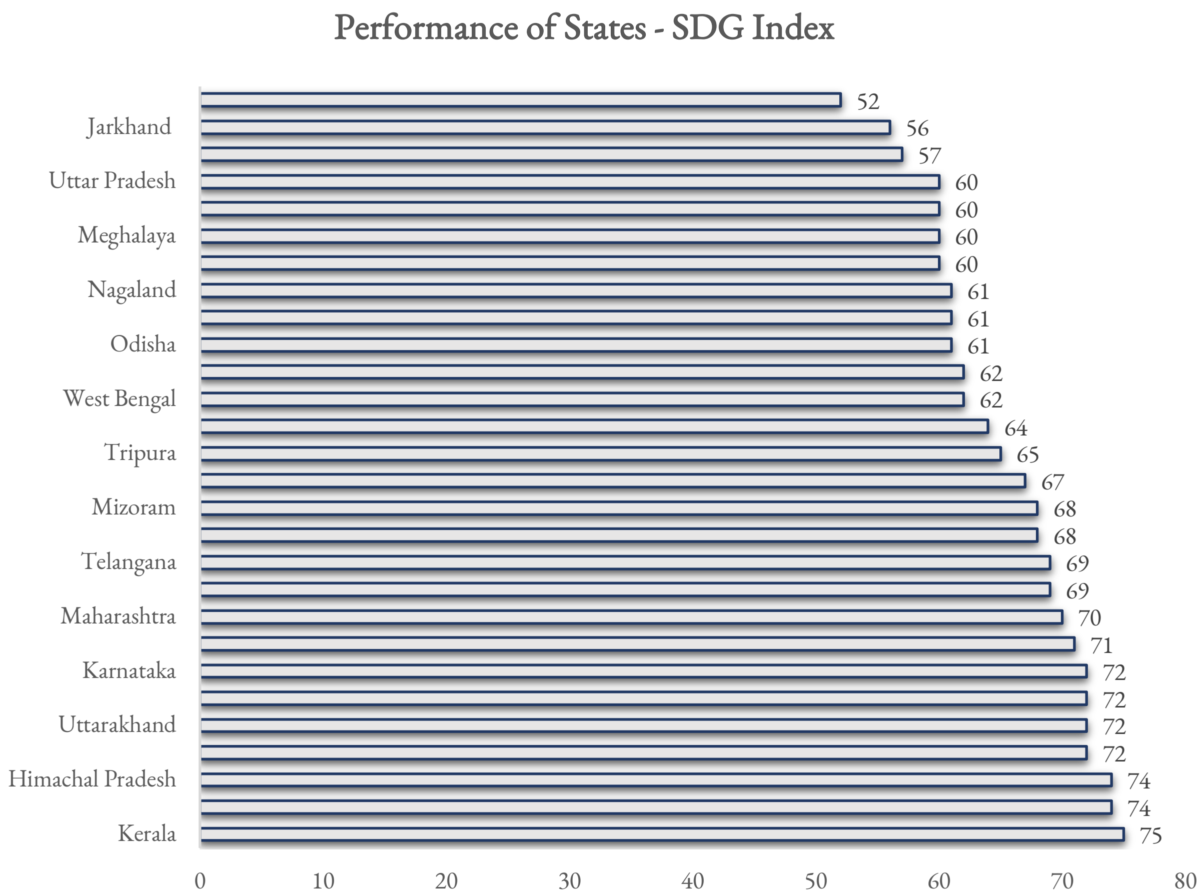
Concerns with the controlling nature of the Planning Commission[2] led to its abolishment in 2014 and the creation of NITI Aayog.[3] The new NITI Aayog was expected to prepare a 15-year vision, a 7-year strategy and a 3-year implementation plan. But all it has done is prepare a New India Strategy @75 and even that has been upended by the pandemic.

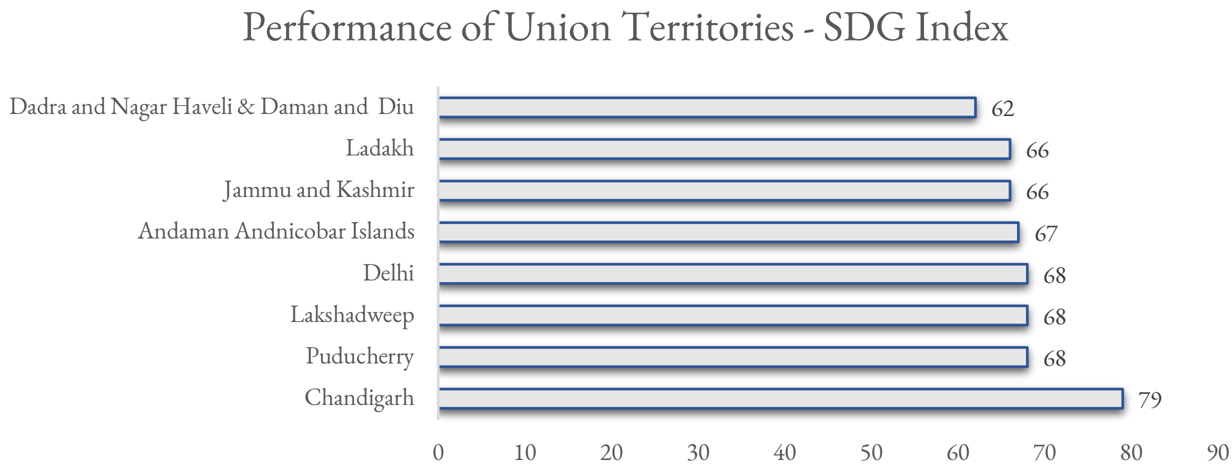
India is now going against the global trend where we see the number of countries with a national development plan has more than doubled, from about 62 in 2006 to 134 in 2018. More than 80 per cent of the global population now lives in a country with a national development plan of one form or another. This is a stunning recovery of a practice that had been discredited in the 1980s and 1990s as a relic of directed economies and state-led development. Several factors have fostered this re-emergence of what is called "new national planning" but from about 2015 the momentum for producing plans has accelerated, driven in part by a need to plan for the Sustainable Development Goals (SDGs) according to Chimhowu, Hulme and Munro (2019).

NITI Aayog has the twin mandate to oversee the adoption and monitoring of the SDGs in the country and promote competitive and cooperative federalism among States and UTs. As its SDG report states "The first element of the strategy is to ensure that attainment of SDGs become central to the policy goals of not only the different Ministries in the Central Government but also of the State Governments. Given the complex nature of the task involved, NITI Aayog uses the framework of cooperative as well as competitive federalism to align the policies and schemes of State and Central Governments in these sectors to achieve the SDGs" (see Figure 1) (2019).

But Niti Aayog as the government's premier think tank needs to do more than just prepare indices of progress. Achieving the SDGs will require a better understanding of synergies between various indicators, so that progress on several indicators can be made by ensuring development programs that address key constraints. For example, health outcomes will depend on access to health but will also depend on clean water and sanitation, education (especially for girls), clean air, transport, better housing, and access to modern energy among some of the key factors. How well these are provided in a coordinated package at the local level makes all the difference. Under the Addis Ababa Action Agenda – the financing framework that followed the adoption of the SDG's – the Integrated National Financing Framework (INFF) has been developed.[4] Several countries have adopted this and made progress in developing INFF's – among them Indonesia is a prominent one. One way to make progress towards the SDG's maybe to have the NITI Aayog take the lead in developing an INFF for achieving the priority SDGs for India by 2030.

Figure 1: SDG Index for India by States and Union Territories



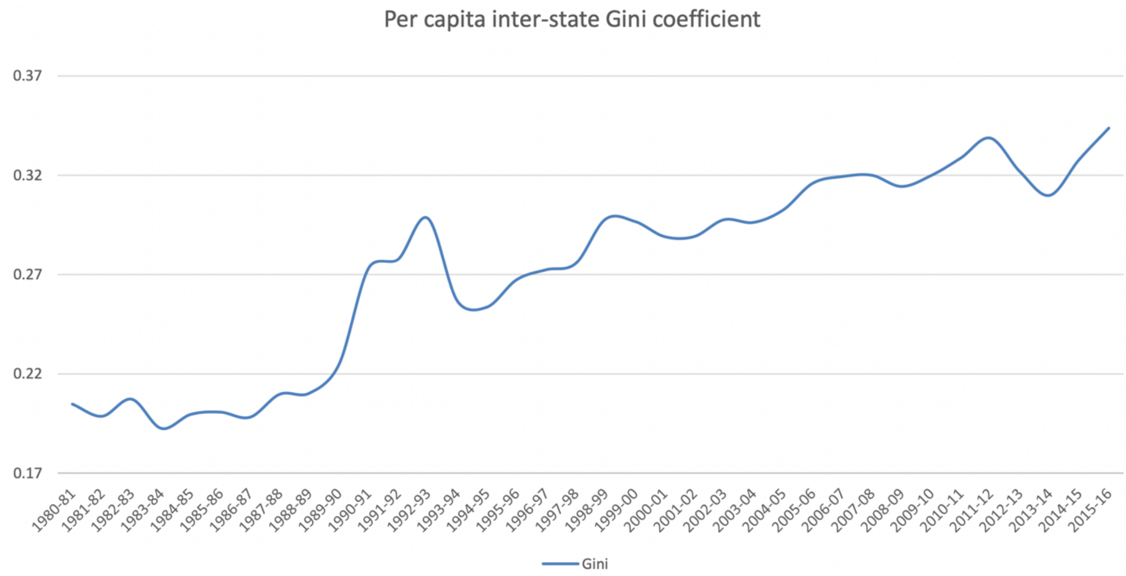


Source: SDG India Index and Dashboard | iTech Mission (niti.gov.in)

India's constitution also recognised a third tier of local government, but this third level of government has remained weak.[5] This inability to plan and deliver services at the level of local administration has meant that planning approaches have been more top-down and not grassroots based. An Aspirational (earlier backward) Districts Programme (ADP)– was set up under NITI Aayog in 2018 designed to reach directly down to the district level ostensibly in cooperation with states. These 112 aspirational (earlier called backward) districts across the country have been learning from and competing against each other to record improvement across the SDGs 3, 4, 6, 8, 9, 10: focusing on health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure.

But despite progress in these areas, some 7 years since the establishment of NITI Aayog, questions are being raised as to whether India can continue to function without medium-term planning. Annual budget allocations are made by the Finance Ministry to meet various investment goals and objectives but without a well-defined plan. NITI Aayog's advice is also not taken seriously by state governments as it comes without resources. Some feel that NITI Aayog should have resources it allocates to address development imbalances and that the Ministry of Finance is naturally focused on budgetary management rather than development outcomes.[6] While no one wants a return to the old Planning Commission, a more involved and competent NITI Aayog, with a stronger voice is clearly needed.

Figure 2: Rising Horizontal Inequality Across Indian States (Provinces)



Source: [India Inequality Report 2018](), Himanshu

Going forward any new planning system will need to address three major lacunae. First, India saw a huge rise in inequality, both individual and across states (see Figure 2) and across other dimensions such as gender, caste and even religion, despite planning. Poverty saw decline but India still has substantial challenges on this front. Second, India placed heavy emphasis on industrialisation but despite all its best efforts, India saw premature de-industrialisation.[7]As a result, a large share of its population remains dependent on agriculture and now faces a farm crisis. Third, India's ability to provide adequate healthcare and social protection to a large mass of its population has remained a huge drawback – now laid bare during the COVID pandemic. And to add to this climate change – the mother of all market failures- looms as a major challenge which will require planned government interventions.

III: Structure of the Planning System and Authorising Environment.

What were the Key Problems with the Planning Commission? [8]

Concerns Regarding Federalism: The Planning Commission, by performing the role of a control commission rather than a recommending body exceeded the scope of its authority. This overreach was egregious due to the Planning Commission's influence on the allocation of funds to the State governments which directly impacts Centre-State relations. The explicit allocation of the responsibility to determine the distribution of Central funds between the Centre and the various States to the Finance Commission is clear from Article 280, Constitution of India. Art. 280(2): It shall be the duty of the Commission to make recommendations to the President as to a) the distribution between the Union and the States of the net proceeds of taxes which are to be, or may be, divided between them and the allocation between the States of the respective shares of such proceeds; b) the principles which should govern the grants in aid of the revenues of the States out of the Consolidated Fund of India; and c) any other matter referred to the Commission by the President in the interests of sound finance. By assuming the crucial function of allocating resources to the States, the Planning Commission clearly came into conflict with the role of Finance Commission.

Concerns of Accountability: Unlike the Ministers of Central Government Ministries, the Deputy Chairman is not subject to Parliamentary oversight by means of questioning in Parliament. He is answerable to Parliament only indirectly through the offices of the Minister of State for Planning and Statistics. Since the Deputy Chairman holds Cabinet rank and outranks the Minister of State for Planning and Statistics, the latter cannot be expected to effectively supervise his actions. This means that the Planning Commission is not subject to Parliamentary oversight through its leader like regular Ministries of the Central Government. This lack persists with the NITI Aayog. This lack of authorising environment eventually affected its legitimacy.

Concerns Regarding Human Resources and Organisational Structure: The Planning Commission was criticised for becoming a monolithic bureaucracy no different from other Central ministries in the way it was administered. The staff of the PC and even the NITI Aayog do not report to the experts but to a Secretary with administrative experience but no domain knowledge. The organisation has also been accused of becoming a 'parking lot' for officers from various ministries (IAS or IES officers) between assignments or who were in dis-favour at that time, who have neither the specialised domain level expertise nor the training to carry out long term economic planning.[9]

Consultation Process: The consultation process around the formulation of the Five-Year Plans was also a huge factor in making the PC unpopular. According to Sen there were three tiers of consultation (2020). The first was -in the Planning Commission itself – where there were divisions corresponding to each ministry in the government, with a mapping also to each state and union territory.

The second part of the consultation process was the Steering Committees and Working Groups that were set up by the PC prior to the preparation of the Plan. The Steering Committees were chaired by a Member (Minister of State) of the Planning Commission and were composed of Secretaries of Ministries relevant to that subject. The Steering Committees established Working Groups to dig deeper into sub-components of these broader subjects and were chaired by the relevant Secretary of that subject and were composed of experts from the PC and from the states.

The third level of consultations was at the political level, where an Approach Paper to the Plan would be sent to the states to get their feedback and subsequently discussed at the National Development Council (NDC) chaired by the Prime Minister. Over time as more and more states were led by parties other than the government at the Centre, more frustration built in, and states felt the NDC meeting were just a façade. The consultation process at the Centre also lost its value as line ministries felt their views were disregarded.

Prioritisation: India's failure on key issues like education, health, sanitation could also be laid at the priorities set by the PC. For example, on education Sudarshan (2020) argues that the shift to promote heavy industry in the early stages of planning – led to placing greater emphasis on higher and technical education and to somewhat greater neglect of elementary education. In subsequent phases of Indian planning, the shift to private education especially after 1990 for secondary and tertiary education was also influenced by thinking in the PC. A major outcome of this approach was greater inequalities in India's education system as reflected even today in the UNDP's inequality adjusted HDI, where loss due to educational inequality is significant.

In the initial years of planning the PC placed heavy emphasis was on industrialisation – but not in labour -intensive basic industry which could have provided lots of employment and helped move people out of agriculture. As a result, India's structural transformation has been hugely distorted, with a very large share of its labour force remaining in agriculture. Between 1950-51 and 2010-11, agriculture share in income fell from 51.8% to 18.21 % but its share in the labour force fell from 68.85% to 54.59% and as late as 2019-20 was still over 40% and beginning to rise again. And despite all the efforts to industrialise in fact the opposite happened. India has had what could be called "premature industrialisation".

There are many factors responsible for this from complex labour laws to problems in land acquisition and access to capital, which have raised costs to industry and are spelt out in greater detail in Chhibber (2021). In addition, as argued by Mehrotra (2020) , India reduced its tariffs very substantially since 1991 but along with its Free Trade Agreements led to the creation of Inverted Duty Structure (IDS) in many key manufacturing sectors, which have hurt its competitiveness and forced India to reverse course and increase tariffs. This shows that India did not have a central policy coordination system which many East Asian countries developed – such as MITI in Japan and the National Development and Reform Commission in China.

Perspective Planning: Over the last 70 years perspective planning has also been tried and emphasised somewhat inconsistently by the PC. Long-term thinking on water, energy, land use has been attempted but without consistency as the focus was always on the Five-year plan. This will become more important as climate change looms heavily on India's future economic and social outcomes. But even the NITI Aayog has failed, so far, to address these longer-term perspectives.

IV: Financing and Budgeting of Plan Expenditure, Costing, Learning and Evaluation

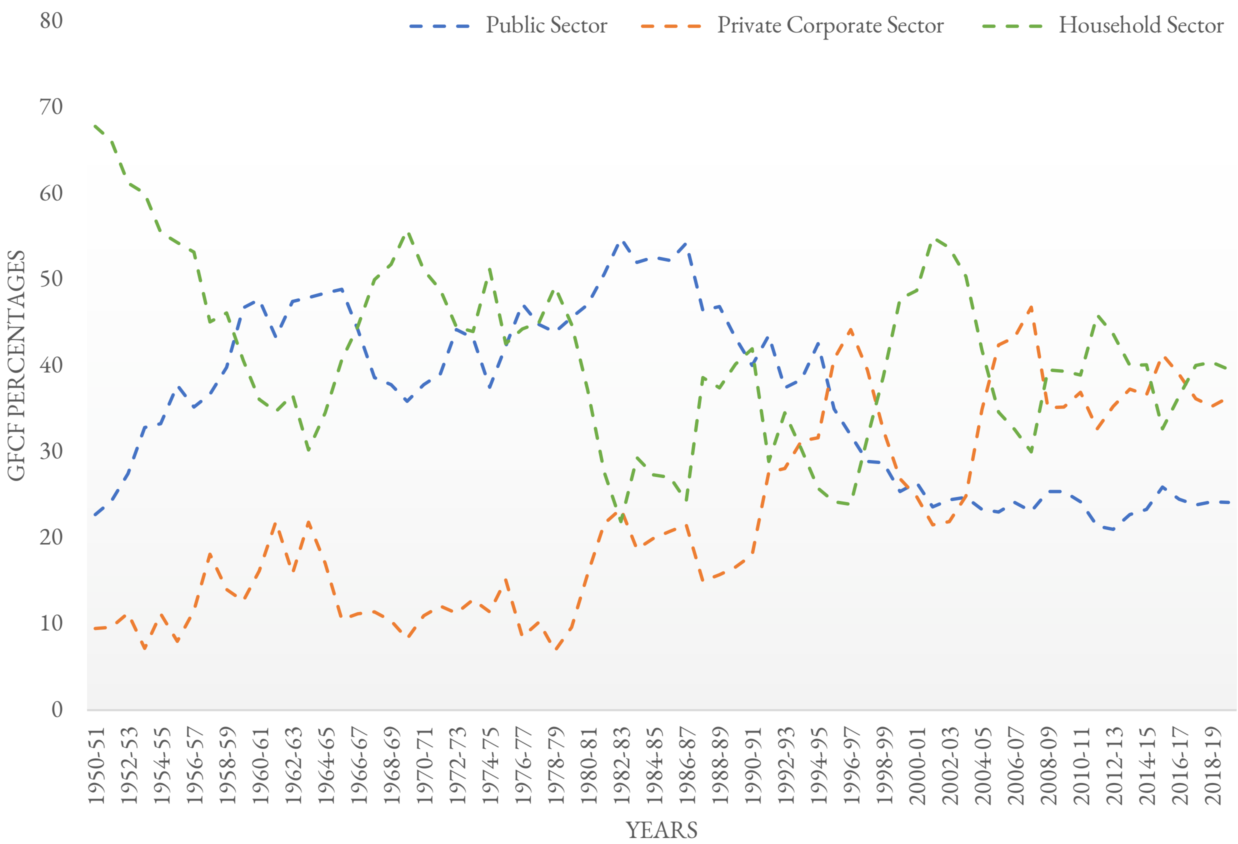
India's mechanisms and formulations for assessing development needs have in the past largely been top-down. As a result, development finance allocations are not needs based but driven by decisions taken at the top. This was done through five-year plans with resources assigned to plan and non-plan expenditure.

For horizontal (between states) and vertical balance (between the union government and the states) a mechanism for revenue sharing was needed and that is why the constitution created the Finance Commission. But that could only cover committed expenditure as including new expenditure planned by the states in such a statutory mechanism would have been difficult. The distinction between plan and non-plan got extended even to Union Ministries because approving committed expenditure was the responsibility of the Finance Ministry while plan expenditure had to be discussed with the Planning Commission. This was often criticised because it was felt that the non-plan provision for maintenance of established projects like say roads often suffered. All this led the Rangarajan Committee to recommend that the distinction between plan and non-plan expenditure did not serve any useful purpose (2011).

Moreover, with the emergence of opposition run states the Planning Commissions block grants were based on a formula (Gadgil formula)[10] rather than a state-by-state analysis of development needs. There was another development-the rapid increase in centrally sponsored schemes on matters within the remit of States.

Decisions on how plan expenditure was to be financed was largely in the hands of the Union Government. External assistance, even for state level projects had to have union government approval, though over time a formula emerged giving some additionality to the states where the externally assisted projects were to be implemented. The PC would usually prepare an overall budget projection that allowed for generous development spending and the Finance Ministry would do the opposite, but the final decision rested with the finance minister. All this has changed now, not just because of the elimination of the plan/non-plan distinction, but also the widening terms of reference of the Finance Commissions, the shift of a lot of public sector funding to the capital market, Goods and Services Tax (GST) and the growing complexity of Union-State political relations. But now with the NITI Aayog having no financial powers, an annual exercise within the Finance Ministry is done to make allocations to sectors and between capital and revenue expenditure.[11]

Figure 3: Changes in Shares of Gross Fixed Capital Formation: 1950-51 to 2019-20



Source: RBI Handbook of Statistics on the Indian Economy

There were three major problems with the financing framework for planning. The first was that the government's own resources were subject to considerable uncertainty. The second, was that increasingly over time (see Figure 3) a substantial part of investment was now in the hands of the private sector not the government and there was no way for the government to know precisely how much investment would be realised. The third was huge cost over-runs in various projects both in item wise EPC (engineering, procurement and contracting) projects, in fixed cost EPC projects and subsequently in PPP projects as well.

By way of illustration of the first problem, we look at the plan vs realised financing of the 11th Five-Year Plan from 2007-2012, the last plan which was completed by a government committed to planning. The current revenue projections were far short as the Global Financial Crisis in 2008 reduced revenues and counter cyclical measures required more expenditure. In addition, the Sixth Pay Commission provided large unanticipated salary increases eating into current revenue surpluses. These gaps had to be made up by huge borrowings which in turn reduced credit for the private sector and hurt private investment. Moreover, investment by public enterprises also fell as the government-imposed price controls – to address the high inflation that was a result of high fiscal deficits – which ate into their investable profits. The lack of an adequate macroeconomic financing model that could help better understand these linkages was a major lacuna of the financing plan.

To illustrate the second problem, we look at the planned and actual investment in the 11th and 12th Five-Year Plan. In the 11th Five-Year Plan the shortfall in public investment was to be made up by increases in private investment but this did not materialise. As stated by Deputy Chairman of the Planning Commission, " *While there may be a shortfall of about 8.7 per cent (Rs.1,25,266 crore) in public investment as compared to the initial targets for the Eleventh Plan, this is likely to be made good by an increase of about 20 per cent (Rs.1,23,321 crore) in private investment.*"

This problem was even more acute in the 12th Five-Year Plan. According to NITI Aayog *"The revised share of private investment in Twelfth Plan is now projected at about 34 per cent, compared with 48 per cent in the original projection and is less than the 37 per cent achieved in the Eleventh Plan.*" (Verma 2017)

With the advent of indicative planning, there should have been a better effort at understanding of the objectives and the instruments available to the government in making the plan a reality. This dissonance between instruments and objectives existed even during the phase of directed planning as pointed out by Mohan and Aggarwal (1990), but continued to a greater degree after 1991 liberalisation. While the state now had a much smaller share in investment it continued to have considerable presence in the economy through State-owned enterprises and through other means of control such as the regulatory bodies, spectrum, licenses and land and mineral allocations. Thus, the state was unable to ensure that instruments and objectives were aligned, because it had no clear framework or model to understand the behaviour of the market economy.[12]

The third major issue was cost over-runs in projects. Costing of projects is done by taking known costs for various types of projects and building into them cost-escalation clauses for WPI inflation. Initially cost escalation due to delays and new contingencies was allowed but the rules for these were changed to reduce disincentives for project delays. Different types of projects have also been used to improve completion time and costs from piece wise EPC contracts, to fixed cost EPC contracts to BOT (Build-Operate-Transfer) contracts for PPP projects. These changes according to Ram Singh have led to a decline in delays and cost overruns since the 1980s (2010). Project delays are one of the crucial causes behind the cost overruns.

Bigger projects have experienced much higher cost overruns compared to smaller ones. Percentage cost overruns also escalate with the length of the implementation phase – *ceteris paribus*, the longer the implementation phase, the higher the cost overruns in absolute as well as percentage terms. Compared to other sectors, projects in road, railways, urban-development sectors, as well as those in civil aviation, shipping and ports, and power sectors have experienced much longer delays and significantly higher cost overruns.

Table 1: Revisions to Investment in Twelfth Five-Year Plan by Infrastructure Sector

SECTORS	**Twelfth plan projection**	**Twelfth plan (revised projection)**	**Eleventh plan (actual)**
Electricity	15,01,666	10,99,266	6,93,480
Renewable Energy	3,18,626	1,68,415	89604
Roads and Bridges	9,14,536	7,64,323	4,60,286
Telecommunications	9,43,899	4,53,792	3,79,414
Railways	5,19,221	3,77,610	1,99,939
Metro Rail Projects	1,24,158	87605	43457
Irrigation	5,04,371	3,96,021	2,28,736
Water Supply and Sanitation	2,55,319	1,76,523	1,16,936
Ports	1,97,781	67016	48846
Airports	87714	27832	35537
Storage	58441	41769	21430
Oil and Gas Pipeline	1,48,933	60608	60080
Total	55,74,663	37,24,078	23,77,746

Source: Niti Aayog

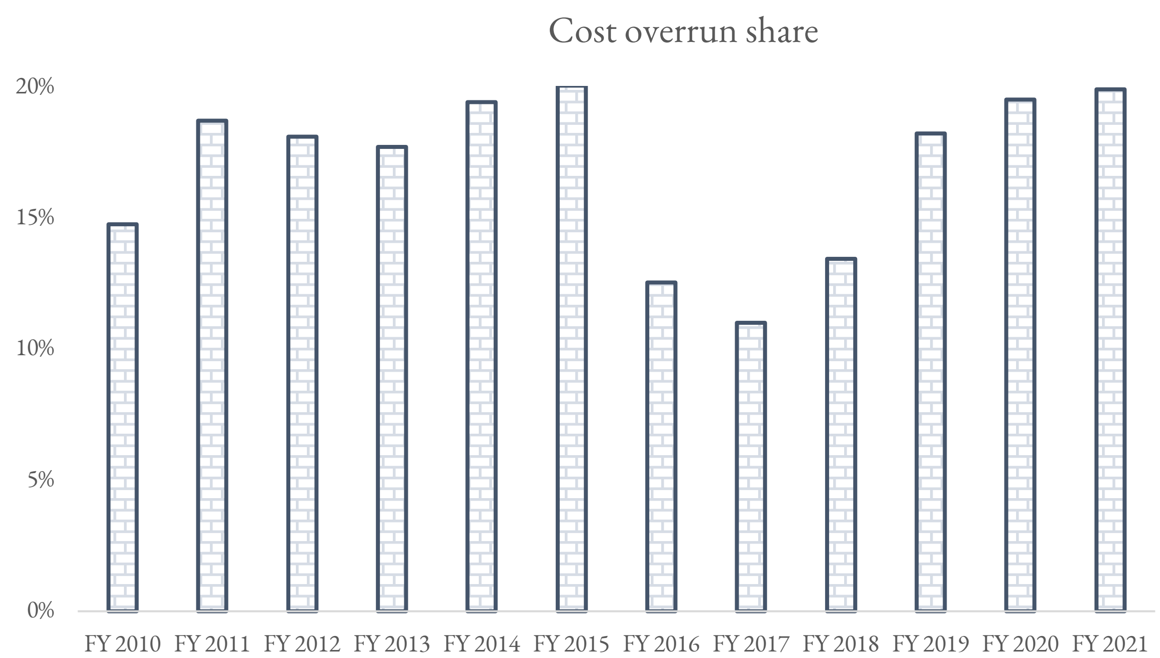
Learning by doing has led to some of these improvements but these benefits have run their course. Nevertheless, cost escalation remains a huge issue as can be seen from Figure 4, with cost escalation in the range of 20% year after year and the accumulated cost over-run on large projects running to 50-60%. The solution is to have smaller projects (break bigger projects into more manageable bits) and to avoid very long gestation projects when it's hard to predict future uncertainties. A good example of a successful project is the Delhi – Metro project which was broken into 4 phases – had a firm financing plan (under the principal financier JICA rules) and had strong leadership which did not brook political interference (Bandyopadhyay 2017).

Several other issues need to be highlighted regarding financing India's plans:

Dealing with PPP's: As regards Public Private Partnership (PPP) projects, since both annuity payments and Value gap funding (VGF) are provided from budgetary support, these will form part of the Plan of the Centre or the State. It is important to have regular information on the investment realised through PPPs. Therefore, there should be supplement to the Central/ State Budgets providing Project-wise, Ministry-wise, and Sector-wise information on PPPs. In addition to inadequate VGF, experience shows that many PPP projects get derailed because government's have not adequately planned for and budgeted ancillary investments that lie in the public domain that will be needed to complete the PPP project. There are also risk guarantees and payment guarantees that must be accounted for in any financing plan. Some face value of these guarantees based on the probability they may be triggered is also needed.

Figure 4: Share of cost overrun in infrastructure projects across India from FY 2010-21

Cost Overruns have declined, but remain substantial



Source: MOSPI, Statista

In India the PC also pushed for model PPP concession agreements in various areas– but the reality was that these model agreements were not flexible or suitable for projects in varying conditions. In 2015, given the difficulties in implementation of PPP projects a committee chaired by noted economist Vijay Kelkar was established to review PPP projects (2015). The Kelkar committee has suggested the revival of a defunct proposal to establish 3PIndia to support PPP projects. It has also called for a rational allocation of risks among various stakeholders in a project and moving away from the one-size-fits-all approach to PPP model concession agreements (MCAs).

Investment by State Owned Enterprises and Undertakings: A substantial part of public investment in India (and many developing countries) comes from SOE's. How these decisions are made with respect to plan outlays must be examined and clarified. Large, retained earnings of SOE's for investment reduce dividends for the government which finances plan expenditures. In some cases, excessive dividend demands neglect investments needed by SOE's. Opaque budgetary systems between SOE's and government make decision making erratic. In the 11th Five-year plan, for example, as inflation picked up price controls on SOE's reduced their profits and or increased their losses. This affected not only their dividend payments to government which were reduced but also affected their investment plans. This type of cascading effects, where decisions taken for a particular reason start to have implications down the line for other targets in the plan need better understanding and more careful consideration.

Foreign Assistance and Financing: What role did foreign assistance – both technical and financial play in India's planning system? Foreign assistance played an important role in the early stages – especially from the First (1951-56) to the Fifth-Year plan (1974-78) but began to play a much smaller role subsequently. By the Eleventh and Twelfth Five-Year Plans, the net external assistance had declined to become negligible in India's plan financing. Nevertheless, as the role played by JICA in ensuring timely and proper completion of the Delhi Metro shows that the role of foreign financing in helping establish proper institutions remains an important one. Such assistance in bringing international experience, guidelines, and processes and in helping build institutions whether from ADB, World Bank, and other multi-lateral institutions may still be valuable even if their role in overall financing has dwindled.

Evaluation systems in India have remained weak with a much greater focus on monitoring spending and inputs than on outcomes. Insufficient attention has been placed on trying to understand what determines outcomes – especially on health and education. As a result, India's planning system has had insufficient mechanisms to make course correction and optimise returns. The internal evaluation units have lacked expertise and hard-hitting evaluation reports have been suppressed. An Independent Evaluation Office was started in 2013 but was not allowed to continue. At the state level, with some exceptions, there are no evaluations systems at all. India has lagged behind many other middle-income countries in this regard. There is growing body of civil society evaluation entities – and some are very successful – but they remain external to the planning and financial allocation process. The learning and adaptation – a la Hirschman – have been missing and bureaucratic top-down rules have led to a system focused on monitoring spending rather than adjusting to deliver outcomes.[13]

V: Lessons and The Way Forward

This section will summarise 9 lessons from India's planning experience and suggest a way forward for strengthening the planning process.

Lesson 1: Political Authorisation and Legitimacy. The authorising environment must reflect the political system. India had a parliamentary democracy yet developed a planning system and apparatus which had no legislative or constitutional legitimacy. The PC was set up by a government decree and reported directly to the PM, with no parliamentary oversight. The Deputy-Chairman of the PC was given the rank of Cabinet Minister but was not a member of the parliament. This lack of parliamentary oversight eventually came to be a major drawback to its functioning and its acceptability. The constitutionally established inter-state council was neglected and utilised only occasionally but was never involved in the planning process. Without a proper political authorisation – especially in a democratic set-up – the planning process loses legitimacy and implementation suffers. 27 countries have planning processes embedded in their Constitutions which ensures continuity when government's change.

Lesson 2: Overlap with Other Bodies The relationship between the PC and the Finance Commission – the constitutional body which decides on the share of revenues that are to be allocated between the union government and state governments and between states and increasingly to local government was never clarified. As a result, there was never any clarity at state level as to how much resources they would receive. With the establishment of a GST Council that has legislative authority there is now confusion between the role of this council and the Finance Commission. The NITI Aayog has no financial authority but does prepare a strategy – how this strategy gets implemented is not clear.

Lesson 3: Healthy Consultative Process is Vital. In a market-oriented economy, the role of planning changes from directed to indicative planning. But if the approach is not sufficiently consultative, it risks becoming more 'prescriptive'. But now India has swung to the other extreme – where there is no long -term planning at all. The Finance Ministry draws up an annual plan – based on feedback from sectoral ministries – the NITI Aayog can provide its inputs, but these can be easily ignored and the Vice-Chair of NITI Aayog has no presence in the Cabinet where the voice of a body designed for more long-term thinking is needed. The voice of state and local bodies in the planning process is also critical and top-down processes eventually create resentment and resistance.

Lesson 4: Shift from Input-Output Models to Behavioural and Pathway Models. Under indicative planning, the PC (or relevant planning institution) must be capable of understanding the responses and reactions to various policy changes. In India the PC continued with traditional input-output models which had lost their relevance after India liberalised in 1991. These models were unable to anticipate how the private sector would react to policies. System wide interlinkages were also not properly understood, as there was no capacity to understand them. In a market-oriented economy – the planning body – must have the analytical capacity to understand the complete and complex relationships between policies and programs. Such capacity was never developed in the PC and surprisingly does not even exist in the NITI Aayog which was set up as a think-tank. This becomes even more important in view of the need for planning under uncertainty due to climate change.

Lesson 5: Development Finance Assessment. The financing plan must be realistic and if underlying realities change, the plan must be revised in an appropriate manner. In India's case the plan's financing needs were not realistic and adjustments were not made if unforeseen expenditures emerged. Also, persistent cost over-runs, which improved somewhat over time – but nevertheless have persisted have put huge strains on the financing plans and resulting outcomes. Breaking large and long-term projects into more manageable bits is one possible solution. The new PPP models also had insufficient consideration of the government's contingent liabilities. Sometimes ad hoc pricing policies led to reduction in SOE investments. This led to excessive market borrowing, which then increased interest rates and reduced access to credit for the private sector.

Lesson 6: Staffing and Expertise. The planning bodies must be staffed with the best and the brightest with domain expertise that commands respect across the system. India started with this in the initial years of planning – but over time became a parking lot for administrative officers not needed elsewhere in the system. Without domain expertise their views and judgements lacked credibility and were resented by the rest of the governmental system. Ad-hoc appointments of Members of the Commission without any specified requisites and attributes were another issue that affected the credibility of the planning process. This problem persists with the NITI Aayog where ad-hoc appointments continue. The Vice-Chair of the planning body (assuming the PM is the Chair) must not only have technical capability but some political heft as well to be able to deal directly with state CM's and local bodies.

Lesson 7: Evaluation, Learning and Feedback. Unlike many middle-income countries, India lacked a proper independent evaluation system with feedback from its findings into the planning process. India has many civil society institutions doing evaluation, but their findings are used as and when convenient. There is no independent systematic evaluation system in government. An Independent Evaluation Office was set up in 2013 but was abolished in 2014. An evaluation department existed in the PC and continues in NITI Aayog, but its findings are not paid adequate attention. The Comptroller and Auditor General's office does financial audits and occasionally performance audits, but they are not a substitute for a proper evaluation system. Evaluation must also be made part and parcel of planning at the state level and every ministry so that there is a greater focus on outcomes and impact – not just on how much is spent.

Lesson 8: Long-term Planning and Link to SDG's. In India, long-term planning was given importance somewhat sporadically. India also did not align its planning targets to any global goals and targets until recently when the NITI Aayog has focused on the SDG's. But while NITI Aayog has set up the SDG monitoring system across the country and for each state it is not clear how these enter plan allocations. The planning bodies must be staffed with the right expertise to draw lessons from international experience and help states and districts make progress on the SDGs and help achieve them by 2030. India should also have the NITI Aayog take the lead to prepare an Integrated National Financing Framework, working closely with MOF and the state planning bodies to achieve the SDGs by 2030 as has been done by Bappenas in Indonesia.

Lesson 9: Cooperative Devolution and Convergence: Rising regional and inter-state imbalances that have developed since India shifted to a market economy have not been easy to address and have increased. An NIPFP study for NITI Aayog, has shown that while Finance Commission allocations are equalising, the transfers from the Planning Commission through general purpose and special CSS were in fact un-equalising (2015). Reducing central allocations to richer and more developed states also risks political backlash as they feel they are being penalised for better performance. But reducing the number of CSS to at best 10 core schemes, with 100 % central funding and using them specifically for correcting horizontal imbalance may be the way forward with a greater role for the Inter-State Council.

India's Planning Process Going Forward

India went away from planning just when the rest of the world discovered "new "national development planning. A review by Chimhowu et al (2019) of planning across the world shows that over 130 countries have produced national development plans to show their priorities for achieving SDGs. Many of the plans are a product of national consensus processes although some are produced mainly technocratic elites. The five-year (medium term) plan is the most popular although some countries have longer term visions documents. National Planning Commissions are back and play a lead role although Economic Ministries still dominate the process. Most national plans lack financing strategies a factor that can affect implementation and achievement of SDGs.

For India, clearly the old Planning Commission had reached its useful life and needed to be ended. But India still needs some form of planning. NITI Aayog needs a revamp. It should be given a much clearer and central role and with a leadership team that has the requisite political heft and technical skills. The head of NITI Aayog should be a cabinet minister with the title of Minister of Economic Development and should be invited to all Cabinet meetings, to be a voice for long-term sustainable development, which often gets a short shrift in the hurly burly of short-term political calculus.[14] The institution should be authorised through an Act of Parliament so that it can have the required legitimacy and be answerable to Parliament. The technical skills in addition to sectoral expertise should also include expertise in economic systems and behavioural modelling, critical to understanding how market forces react to policy changes under indicative planning and in how development outcomes are affected by a variety of interventions, to achieve the SDGs. It should have the expertise to be a systems reform commission – to address intersectoral linkages and future challenges such as climate change and meeting the SDG targets as well as ensure greater horizontal equity between states through a few core CSSs and lead the way forward – not be just a reactive body or tasked with piecemeal special projects.

The NITI Aayog should be preparing a long-term perspective vision, now possibly all the way to 2047 India's 100th anniversary, an interim target of 2030 to dovetail that vision to the agreed SDG's and 5-year plans that are needed to move towards that vision. Without such a compass, it's not clear what direction is the country headed towards and how it should try and get there. The NITI Aayog should also prepare a National Investment Financing Framework to outline how best to achieve that vision and in the interim phase to achieve the SDG's. It need not be given financial power as was the case under the old PC - especially as the distinction between plan and non-plan expenditures does not exist anymore, but it should have the power to sign off on capital and recurrent expenditure allocations both to central ministries and to the states and to local administration. Without such a sign off power it can be easily by-passed and ignored.

The current NITI Aayog needs stronger leadership, a legitimised authorising environment and effective use by the government to play a central and key role in helping India achieve the SDGs by 2030 and become a prosperous country by 2047.

References

Appadorai. 1974. *Documents on Political Thought in Modern India: v. 1.* Oxford University Press.

Press Information Bureau. 2020. *PM gives a clarion call for Atmanirbhar Bharat.* 12 May. Accessed May 2021. https://pib.gov.in/PressReleasePage.aspx?PRID=1623391.

n.d. *Google Books Ngram Viewer.* Accessed March 7, 2021. https://bit.ly/2PxZkVY.

Singh, Joginder. n.d. "Namdhari Sikhs of Punjab: Historical Profile, JPS 21:2." https://punjab.global.ucsb.edu/sites/default/files/sitefiles/journals/volume21/21_2/3-Joginder%20Singh%2021.2.pdf.

Encyclopedia of India. 2020. *Trade Policy, 1800–1947.* Encyclopedia.com. Accessed March 7, 2020. https://www.encyclopedia.com/international/encyclopedias-almanacs-transcripts-and-maps/trade-policy-1800-1947.

Petroleum Planning and Analysis Cell. 2021. *State wise collection of SGST/UTGST.* Ministry of Petroleum and Natural Gas, Government of India.

Ernst & Young LLP & Shakti Sustainable Energy Foundation. 2018. " Discussion Paper on Carbon Tax Structure for India."

Thirteenth Finance Commission. 2009. *Report of the Task Force on Goods & Services Tax.* Government of India.

Rao, M Govinda. 2015. *Central Transfers to States in India: Rewarding Performance While Ensuring Equity.* Final Report of a Study Submitted to NITI Aayog, New Delhi: National Institute of Public Finance and Policy.

NITI Aayog. 2019. *SDG India Index and Dashboard.* New Delhi: Niti Aayog; United Nations.

Kelkar, Vijay. 2019. *Towards India's New Fiscal Federalism.* NIPFP Working paper series, New Delhi: National Institute of Public Finance and Policy.

Sudarshan, RM. 2020. "The Planning Commission and Education." In *Planning in the 20th Century and Beyond: India's Planning Commission and the Niti Aayog*, by Santosh Mehrotra and Sylvie Guichard (ed). Cambridge University Press.

Sen, P. 2020. "Plan but Do Not Over Plan." In *Planning in the 20th Century and Beyond: India's Planning Commission and the Niti Aayog*, by (ed.) Santosh Mehrotra and Sylvie Guichard. Cambridge University Press.

Chhibber, Ajay. 2021. "India's demographic dividend or disaster? Mismanaged factors of production—Land, labor, infrastructure, cities." *Journal of Infrastructure, Policy and Development* 5 (1): 1-13.

Mehrotra, Santosh. 2020. "Why Does India Need a Central Planning Institution in the 20th Century." In *Planning in the 20th Century and Beyond: India's Planning Commission and the Niti Aayog*, by Santosh Mehrotra and Sylvie Guichard. Cambridge University Press.

C Rangarajan (Chairman). 2011. *Efficient Management of Public Expenditure.* High Level Expert Committee, New Delhi: Planning Commission, Government of India.

Verma, Sunny. 2017. "Twelfth Five Year Plan: On weak economy, infrastructure investment projected to decline sharply." *The Indian Express*, 26 July: https://indianexpress.com/article/business/economy/twelfth-five-year-plan-on-weak-economy-infra-investment-projected-to-decline-sharply-4767150/.

Rakesh, Mohan, and Vandana Aggarwal. 1990. "Commands and Controls: Planning for Indian Industrial Development: 1951-90." *Journal of Comparative Economics* 14 (4): 681-712.

Singh, Ram. 2010. "Delays and Cost Overruns in Infrastructure Projects: Extent, Causes and Remedies." *Economic and Political Weekly* 45 (21): 43-54.

Bandyopadhyay, Sruti. 2017. *The Delhi Metro: Effective Project Management in the Indian Public Sector.* Case Study, New Delhi: Global Delivery Initiative.

2015. *Report of the Committee on Revisiting and Revitalising Public Private Partnership Model of Infrastructure.* Government Report, New Delhi: Department of Economic Affairs, Ministry of Finance.

Chimhowu, Admos O., David Hulme, and Lauchlan T. Munro. 2019. "The 'New' national development planning and global development goals: Processes and partnerships." *World Development* 120: 76-89.

Notes

[1] For a fuller description of India's economic history since independence see Chhibber, A and S.A. Soz (2021): Unshackling India: Hard Truths and Clear Choices for Economic Revival, Harper-Collins India, and a good review of India's planning shifts during this phase is available in Desai Nitin, Planning in a Liberalized Economy in Policymaking for Indian Planning, ed. Sameer Kochar, Skoch Foundation, New Delhi, 2012.

[2] Even former Prime Minister Manmohan Singh lamented the lack of reform in the Planning Commission in April 2014 and had suggested it be turned into a Systems Reform Body.

[3] Finance Minister Arun Jaitley made the following observation on the necessity of creating NITI Aayog, "The 65-year-old Planning Commission had become a redundant organization. It was relevant in a command economy structure, but not any longer. India is a diversified country, and its states are in various phases of economic development along with their own strengths and weaknesses. In this context, a 'one size fits all' approach to economic planning is obsolete. It cannot make India competitive in today's global economy.

[4] Integrated National Financing Framework (INFF) - https://inff.org/

[5] Below the State governments, in urban areas as of 2016 there were 96 municipal corporations, 1,494 municipalities, and 2,092 smaller municipalities (called Nagar Panchayats). There are 247,033 rural local bodies or panchayats, of which 515 are at the district level, 5,930 at the block level, and 240,588 at the village level. India also has an administrative structure with 741 districts with an appointed – not elected- district administrator.

[6] See Vijay's Kelkar Sukhamoy Chakravarty Lecture (2019)

[7] See also Dani Rodrik 2015 'Premature Deindustrialization'. Journal of Economic Growth 21: 1-33.

[8] A good discussion of the problems of the Planning Commission can be found in "Role and functions of NITI Aayog", Article *in* Economic and Political Weekly · January 2015, Govinda Marapalli Rao, The Takshashila Institution.

[9] In 2014 when it was abolished more than half the posts in the PC were occupied by officers on deputation. Mukherjee, S (2015) 'Niti Aayog to be Leaner 'Business Standard, 25 March 2015.

[10] The Gadgil formula was formulated with the formulation of the third five-year plan for the distribution of plan transfers amongst the states. It was named after D. R. Gadgil, then deputy chairman of the Planning Commission. The central assistance provided for in the first three plans and annual

plans of 1966–1969 lacked objectivity in its formulation and did not lead to equal and balanced growth in the states. The National Development Council (NDC) approved the following formula:

1. Special Category states like Assam, Jammu and Kashmir and Nagaland were given preference. Their needs should first be met out of the total pool of Central assistance.

2. The remaining balance of the Central assistance should be distributed among the remaining states on the basis of the following criteria: 60 per cent on the basis of population; 7.5 per cent on the basis of tax effort, determined on the basis of individual State's per capita tax receipts as percentage of the State's per capita income;25 per cent on the basis of per capita state income, assistance going only to States whose per capita incomes are below the national average;7.5 per cent for special problems of individual states.

[11] This section is based on discussion with Dr Nitin Desai who served both in the Ministry of Finance as Chief Economic Advisor and in the Planning Commission.
[12] The plan modelling exercise continued with input-output models totally unsuited to the new reality of a market economy.
[13] See also Stiglitz, J 2014 'Creating a Learning Society: A New Approach to Growth, Development and Social progress.' New York, Columbia University Press, and De Geus, A.P. 1988 'Planning as Learning'. Harvard Business Review (March-April): 70-74.
[14] It could be Minister of Development and Planning as well.

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Designing Transfers Policy With Normatively Determined Revenues And Expenditures Of State Governments In India

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Abstract

This study addresses an important policy issue of designing equalisation transfers from the union government of India to the states. It empirically measures the own revenue efficiency and potential of General Category and Special Category States using the frontier approach for panel data. It also analyses the effect of transfers on states' own revenue and its components. Results indicate a strong crowding-out effect of transfers in General Category States and a strong crowding-in effect in Special Category States. Amounts of additional transfers required to provide equal level of public services for all 29 States in four alternative scenarios range between ₹1072 billion and ₹15,948 billion. The range is based on alternate benchmarks of fiscal capacities and expenditure needs. We hope that these results will be useful to policymakers and other stakeholders to design appropriate fiscal transfer strategies such that all citizens can avail a standard level of public services in India.

Keywords: Fiscal equalisation, expenditure needs, fiscal capacity, Indian states

JEL Classification: H77, H73, H72, C23

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1. Introduction

In federal nations, an asymmetry exists in assigning resources and spending responsibilities between the union government and the sub-national (or state) governments which leads to vertical and horizontal fiscal imbalances (Oates. 1999). As the sub-national or regional governments may have different fiscal capacities or abilities to raise revenues, the rich ones are in general better-off to finance public service provision. The sub-national governments may also differ in the expenditure needs. Even states with equal fiscal capacity may have cost differences in providing a standard bundle of public services due to differences in needs, price levels, demographic profiles, climatic conditions, incidence of poverty, unemployment etc. This hampers their ability to provide a comparable minimum standard of public services to ensure equity and efficiency in governance.

Intergovernmental transfers are important policy instruments to address such issues in federal nations. The proponents of equalisation transfers (Buchanan, 1950; Boadway, 1980; Boadway and Flatters, 1991) argue that by permitting equal fiscal treatment of identical jurisdictions in a federation, such transfers can promote "equity". By discouraging fiscally induced migration and enabling the states to provide certain minimum comparable standards of public services, the transfers can reduce barriers to factor mobility, thereby enhance the economic "efficiency" (Shah, 1994).[1] Thus, the equalisation transfers are consistent with both normative considerations of equity and efficiency (Munoz, Radics and Bone, 2016).

However, the median voter theorem argues that the transfers would crowd out local revenues as sub-national governments would pass them to local residents as reductions in local taxes and fees (Broadford and Oates, 1971). Thus, they would likely exert disincentive effects on states tax/revenue efforts. Further, distributing the transfers as lower taxes would crowd out local spending (Scott, 1952).

Countries like Australia, Canada, Germany, and Switzerland have developed their own models of equalisation with different implications for equity, incentives, and distribution (Bahl, Martinez and Sjoquist, 1992; Blair, 1992; Boadway, 2004; Ladd and Yinger, 1994; and Ridge, 1992). Among them, the Canadian and the Australian systems are two well-established models of equalisation: the former focuses on the fiscal capacity equalisation while the latter focuses on both fiscal capacity and expenditure equalisation. However, in both models, there is no reference to the efficiency consideration (Rangarajan and Srivastava, 2004).

In India, the Constitution (1950) assigned separate tax powers and expenditure responsibilities to the union and state governments. This led to vertical and horizontal imbalances. The Finance Commission (FC) of India was constitutionally assigned the task of determining transfers to all states, including larger or General Category States (GCS) and small or Special Category States (SCS) in the form of tax devolution (shared taxes) and statutory grants. This was done mainly using the "gap filling approach" where the assessment of tax revenues of the states is determined based on the past performance. There is hardly any reference to efficiency in raising revenues. The Ninth FC attempted to use the "Representative Tax System" (RTS) to some extent. The problem with the RTS is that it derives the revenue capacity which is closer to the average rather than maximum or potential fiscal capacity.

The FC transfers have been supplemented by Planning Commission grants (till 2014) and grants under various Centrally Sponsored Schemes (CSS) since 1950. The central transfers have played an important role in the state Governments' budgets. During 2011-12 to 2018-19, the share of Central transfers in the total revenue receipts of (29) Indian states ranged between 38.3% (2013-14) and 47.1% (2016-17).[2] Majority of the transfers were unconditional and a small portion of them was conditional/specific.[3] There are sharp differences in the level of federal transfers to states in different years. For instance, among the Indian states, Haryana had the lowest per capita transfers of ₹5434 in 2018-19 and Arunachal Pradesh had the highest per capita transfers of ₹90,124. Wide temporal and spatial disparities exist in other fiscal indicators also. In 2018-19, Bihar had the lowest per capita own revenues of ₹2824 and the lowest per capita revenue expenditures of ₹10,515. Goa had the highest per capita own revenues of ₹40,532 and Sikkim had the highest per capita revenue expenditures of ₹79,197.

In this context, the following important questions emerge: (i) Does the existing transfers policy have incentive or disincentive effect on state governments' own revenues in India? (ii) Do the incentive or disincentive effect of transfers on own revenues happen in GCS and/or in SGS? (iii) Is there a need for the robust design of the fiscal transfers so that the goal of horizontal fiscal equalization can be achieved? (iv) Do we need different equalisation principles needed for GCS and SCS? and (v) whether additional resources required to achieve the equalisation in India? This study attempts to answer these policy issues pertaining to the determination of fiscal transfers in India using the data for 29 Indian states during 2005-06 to 2018-19 and attempts to provide a normative approach to determine the potential own revenues based on the stochastic frontier approach for panel data and revenue expenditure of the states. Specifically, it empirically determines the additional transfers required to provide the benchmark level of public services (measured by benchmark per capita expenditure) considering full or average revenue potential of state governments.

The main contributions of this study are as follows. Firstly, although enormous studies emerged on the merits and standards of equalisation for various countries, studies on how to practically equalise the fiscal capacity and spending needs are scarce (Maarten and Lewis, 2011). This study contributes to this sparsely researched area. Secondly, studies designing equalisation transfers in the developing countries context are very rare. One such is Munaz et al., (2016), which estimates for 10 Latin American Countries the effects of transfer systems to identify which transfers equalize in greater or lower degree the own revenues of sub-national governments. Saraf and Srivastava (2009) apply the Canadian approach in calculating the fiscal capacity equalisation and Australian approach in calculating expenditure need based equalisation only for education and health in India. The present study is the first one designing the equalisation transfers based on normatively determined revenue capacity and revenue expenditure of GCS and SCS. Thirdly, it also empirically examines states in which transfers have incentive or disincentive or no effect on own revenues. These state specific results might be useful for policymakers to design appropriate strategies to achieve a horizontal balance. Finally, while this study provides policy suggestions based on the Indian experience, these may be relevant for similar federal nations.

This study proceeds as follows. Section 2 briefly reviews the literature on the study topic. Section 3 explains the empirical model, the data and the estimation technique employed. While the Section 4 presents and discusses the empirical results, the final Section 5 provides the policy conclusions of the study.

2. Brief Review of Literature

Tiebout (1956), Musgrave (1959) and Oates (1972) developed the "First Generation Theory" (FGT), which views equalisation transfers as a necessary tool to prevent relatively richer jurisdictions attracting more investments at the expense of poorer ones. The Second-Generation Theory (SGT), which emerged recently, strongly argues for own revenue powers of sub-national governments. It stresses the importance of horizontal competition between sub-national governments for economic efficiency and a refrainment of federal government from intervening in sub-national taxing and expenditure decisions. It further views that the Centre's fiscal intervention is distortionary and creates incentive compatibility problems by inducing sub-national spending, amassing unsustainable deficits, and perpetuating states' dependence on the Centre for support.

Despite these contrary views, there is a large volume of literature on transfers addressing horizontal fiscal inequalities. Buchanan (1950, 1952), Boadway (1980) and Boadway and Flatters (1991) have proposed equalization transfers. In theory, such transfers from the federal government can discourage fiscally induced migration and ensure that every sub-national government becomes capable of providing standard level of public services at standard tax rates. However, Scott (1952) and Courchene (1978) argue that the equalisation transfers may induce inefficiency in the regional allocation of resources, because they discourage outmigration of labour to high income jurisdictions where it would be more productive.

Other opponents like Shah (1988) argue that in the presence of full capitalisation, there may not be any efficiency and equity basis for fiscal equalisation transfers, because people in jurisdictions with fiscal surpluses pay relatively more for private services and less for public services, and vice versa for jurisdictions with fiscal deficiencies. Since net benefits are capitalised into property values, a capital gain or loss on account of the local public sector is realised at the time of a property sale. As a result, Tiebout's prescription that a system of local governments would ensure optimal levels of local public services is not guaranteed. Despite these limitations, as the equalisation transfers provide a rationale to estimate the expenditure needs and fiscal capacity as accurately as possible, many procedures have emerged in the literature (Munaz et al., 2016).

Measuring Fiscal Capacity: Fiscal capacity is the ability of union governments and subnational governments to raise revenues from their own resource bases. There are various methods to measure the fiscal capacity of a sub-national government. The simplest one uses the current or past year's revenue collections. But this raises many issues: (i) while potential ability to raise revenue is not directly affected by tax rates, the actual revenue is affected by fiscal effort and tax payers compliance (ii) use of current revenue may provide an incentive for the regional governments to impose low tax or make less effort in order to get higher compensation; (iii) use of past collection may have time inconsistency because regional governments expect that current increases in revenue obtained by rates or collection effort would reduce future transfers (Vaillancourt and Bird, 2005). Another method to measure fiscal capacity is to use macroeconomic indicator like GDP at regional levels, but this may not be a good indicator because it indicates maximum capacity. In general, governments attempt to collect significantly lower than GDP.

The third one is the representative revenue system (RRS), which measures the amount of revenue that could be raised by a regional government if it uses the standard tax bases and rates. It basically uses the regression method and considers the average revenue effort. The accuracy of RRS depends on the availability of data. For instance, Canada considers the fiscal capacity of a province as a measure of its ability to raise revenues from more than 30 revenue categories including personal income tax, corporate income tax, sales taxes, property tax, etc. The revenue potential for each province is computed using data on the size of respective tax bases and the average level of tax effort (i.e., average effective tax rates). Canada provides transfers to a province if its fiscal capacity is below a threshold or 'standard'. The major limitation of the RRS is that it provides the estimates of average revenue capacity and not the maximum/potential capacity.

The frontier approach suggests how to measure the potential revenues of regions. Broadly, there are two frontier approaches available: the data envelopment approach (DEA) and the stochastic frontier approach (SFA). The DEA method, developed by Farrell (1957) considers that the actual revenue (output), R is less than the potential revenue, $R^*(=f(X))$, i.e., $R \leq R^*$, where R^* is a deterministic quantity and X is a vector of determinants of revenues including the revenue base. The revenue gap is given by: $u=R^*-R$ and due to non-linear relationship, the actual revenue can be written as: $R= f(.)e^{-u}$. The SFA approach for cross section data, developed independently by Aigner, Lovell and Schmidt (1977) and Meeusen and van den Broeck (1977), considers that the potential output is not deterministic but stochastic, due to random factors and so the actual revenue can be rewritten due to the random factors as: $R = f(.)e^{-u} e^{v} = f(.) e^{\varepsilon}$, where v is regular stochastic error term and ε is the composite error term (=v-u). The frontier revenue function is estimated using the maximum likely estimation (MLE) method assuming that the one side u (i.e., inefficiency) term follows either half normal or truncated normal or exponential or gamma distribution. Jondrow et al., (1982) suggest a procedure to compute the individual specific efficiency of sample units.

Schmidt and Sickles (1984) introduced the panel data version of SFA. This approach assumes that efficiency is time-invariant. Assuming the Cobb-Douglas functional form (and lower cases indicate the logarithmic values), the fixed effects model of revenue is specified as: $r_{it} = \alpha + x_{it}' \beta + v_{it} - u_i$, where u_i to be independently and identically distributed (i.i.d) with mean μ and variance σ^2_u and x is a vector of determinants of revenues. Letting $\alpha_i = \alpha - u_i$ the equation becomes: $r_{it} = \alpha_i + x_{it}' \beta + v_{it}$. The α_i is an individual (region) specific effect and can be estimated using either the fixed effects (FE) method or random effects (RE) method. In FE method, α^* [=max (α_i)] is the performance of the Most Efficient Region and the relative efficiency of i^{th} region can be measured as: $u_i = \alpha^* - \alpha_i$. Then, own revenue efficiency is computed as: $ORE_i = \exp(-u_i)$. In RE method, the individual effect is obtained as: $\alpha_i = (1/T)\ \Sigma\varepsilon_{it}$; i=1, 2,...,N and one can get α^* and $u_i = \alpha^* - \alpha_i$ and ORE as in FE method. Alternatively, one can use MLE method to estimate the equation $r_{it} = \alpha + x_{it}' \beta + v_{it} - u_i$, where u is assumed to follow either half normal or truncated normal distribution. Later Cornwell et al. (1990), Kumbhakar (1990) and Battese and Coelli (1992) extended this to time varying efficiency models. A few studies use the SFA to measure revenue or tax or fiscal efficiency. [4]

Spending Needs: There are four alternative approaches available in the literature to measure the spending needs of sub-national governments. The first, the simplest approach, is to use historical expenditure patterns (Boex and Martinez-Vazquez, 2004). In this is approach, there is no guarantee that past expenditures accurately reflect the present spending needs. Further, because of changing spending norms and priorities, past expenditures on particular services may not reflect current policy objectives (Vaillancourt and Bird, 2007). The second approach assumes that all regions have identical spending needs and so each is allocated the same amount. While it is simple to apply, it leads to a significant gap in per capita resource availability.

A third method regresses the actual spending on need indicators and other determinants of regional expenditures. The coefficients of the need indicators are used to build an allocation formula while keeping the effect of non-need expenditure determinants as constant (Ladd, 1994). However, this approach requires the data on appropriate regional characteristics that influence regional spending. Further, it is applicable only when actual expenditures are good indicator of spending needs. Another method is the representative expenditure system (RES) method. This measures a sub-national government's per capita spending need as the sum of its workload for each category of service weighted by average spending on each unit of service, divided by population. Thus, this provides an estimate of how much a jurisdiction would spend per capita given an average service level, its workload and the cost of providing services. However, this approach requires necessary data on various categories of expenditures, workload etc. (Maarten and Lewis, 2011).

Equalisation Transfers Systems Across Nations: Interestingly, many countries have designed their own equalisation methods. For instance, the Australian model considers both revenue and expenditures. It prepares the 'standard budget' for each service based on all-state average of expenditures as well as revenues so that the system reflects average efficiency (and not maximum possible efficiency). The Germany and Switzerland consider expenditure needs in fiscal equalisation. In Germany, nation-wise average tax revenue is used as the proxy for expenditure of each sub-national government. In Switzerland, the calculation of expenditure needs of cantons considers population density, mountain zones, productive area etc.

The Canadian system uses an elaborate (tax-by-tax) representative tax system (RTS) approach, where each tax or revenue source is considered individually and the average or representative tax effort is applied to the difference between the standard revenue base and the actual base (Bird and Smart, 2002). Denmark and Sweden explicitly design transfers based on the assumption that an average national local tax rate is applied. This creates an incentive to levy at least average taxes because those regions that levy above average taxes are not penalised while those that levy below are not rewarded. See Ma (1997), Vaillancourt and Bird (2007) and Hansjörg and Claire (2008) for the main features of fiscal equalisation schemes in selective countries.

Empirical Studies: Most empirical literature considers both income and transfers as two important economic factors determining local revenues. They treat income as a proxy for revenue base. They include transfers to test the hypothesis that transfers/grants from upper tier Governments crowd out revenues from local taxes, utilising the conceptual foundation given by the median-voter model. For instances, Zhuravskaya (2000) establishes a crowding out effect in Russia, Mogues and Benin (2012) in Ghana and Baretti et al., (2002) in Germany. However, Dahlberg, Mork, Rattese and Agren (2007) do not find a crowding out effect of transfers on local tax rates or on local tax revenues after econometrically addressing the potential endogeneity of transfers. Studies such as Skidmore (1999) show a positive (crowding-in) effect of transfers on local revenues.[5]

A few studies have emerged on the topic that are related to India. For instances, Sarma (1991), Naganathan and Sivagnanam (2000), Panda (2009), Dash and Raja (2013) show a negative effect of transfers on states own revenues/tax revenues. But these studies analyse only the average effect of transfers on own/tax revenues and not state specific effect. Further, they bypass the issue of tax effort. While Paincastelli (2001) and Purohit (2006) estimate the tax capacity/effort using income or RTS or aggregate regression approach, they do not use tax effort to design transfers. Jha (1999) uses the Battese and Coelli (1992) panel frontier approach to measure the tax efficiency of 15 major Indian states from 1980-81 to 1992-93. Sandhya, Goyal and Pal (2016) use the SFA for panel data and measure the tax capacity of 14 major Indian states from 1991-92 to 2010-11. But they also do not use fiscal capacity to derive the transfers.

3. Empirical Model, Data and Estimation

This study employs a framework closer to the Australian Transfer Mechanism. This involves four steps: (i) specify and estimate the stochastic own revenue (and own tax/own non-tax) equation(s); (ii) estimate the fiscal/revenue capacity for each state utilising the estimated model and standard benchmark; (iii) estimate the revenue expenditure needs, state-wise, using the per capita revenue expenditures and its standard bench mark; and (iv) determining the equalisation transfers for each state utilising the normatively determined fiscal capacity and expenditure needs. The empirical methodology to determine the equalisation transfers to Indian states is explained as:

Let the current transfers system is designed to cover only the revenue gap (not the total gap). Therefore, the per capita transfers to the state i in a given year 0 is T_0, which is the difference between the per capita cost of providing public services (C_0) and its per capita own revenues (R_0) in that year. That is, $T_0 = C_0 - R_0$. The task is to determine additional transfers required for state i to provide the benchmark level of public services (C_1) given its T_0, C_0, and R_0.[6] The efficiency aspect can be ensured by considering full (i.e., average of top 3 states) or (all state) average revenue potential of state (R_1). Therefore, $T_1 = C_1 – R_1$. The percentage change in per capita transfers, $(T_1\text{-}T_0) / T_0$ (denoted by lower case letter) is: [7]

$$t = c\frac{C_0}{T_0} - r\frac{R_0}{T_0}. \tag{1}$$

where c is the percentage change in per capita revenue expenditure and r is the percentage change in own revenues. To compute r, the estimate of benchmark, efficient revenue performance is required. This can be done utilising the frontier production function models, which identify the agents (such as states) which operate on the frontier as "efficient" and others operate below the frontier as "inefficient". The efficient agents essentially generate maximum possible output (=revenue) from the given set of inputs while others generate revenues that are less than their potential levels of revenues. The ratio between the actual and potential revenue is the measure of (revenue) efficiency.

We specify a simple production function corresponding to the per capita own revenue of i^{th} state in time period t, (R_{it}) as: [8]

$$R_{it} = f(X_{it};\beta)\exp(v_{it} - u_i); \qquad i=1,2,..,n; \qquad t=1,2,..,T; \qquad (2)$$

where f (.) is the frontier (revenue) function, X_{it} is a vector of resource bases (inputs) and β is a vector of parameters. u_i ($u_i \geq 0$) is a one-sided (non-negative) residual term, representing the revenue (in) efficiency of the state and differs across states. v_{it} is the regular random error term. Assuming the Cobb-Douglas functional form (and * indicates the logarithmic values), the equation (2) can be written as:

$$R_{it}^{*} = \alpha + X_{it}^{*'}\beta + v_{it} - u_i \qquad (3)$$

Letting $\alpha_i = \alpha - u_i$ the equation (3) is rewritten as:

$$R_{it}^{*} = \alpha_i + X_{it}^{*'}\beta + v_{it} \qquad (4)$$

It fits exactly the usual framework in panel data literature with a firm effect but not time effect. The α_i is a state specific effect and can be estimated using the fixed effects (FE) method.[9] The performance of a state can be examined relative to the level achieved by the Most Efficient State (MES). If the N estimated intercepts are: $\hat{\alpha}_1$, $\hat{\alpha}_2$, ..., $\hat{\alpha}_N$, then $\hat{\alpha}_i^{*}$ [=max ($\hat{\alpha}_i$)] is the own revenue performance of the MES. Then, the relative efficiency of i[th] state will be: $\hat{u}_i = \hat{\alpha}_i^{*} - \hat{\alpha}_i$. This ensures that all $\hat{u}_i \geq 0$. A high value of $\hat{u}_i$ implies that state i is very inefficient relative to the MES. The state specific estimates of efficiency are given by:

$$\text{Own Revenue Efficiency, } A_i = \exp(-\hat{u}_i); \qquad i=1,2,....,N \qquad (5)$$

Thus, in the FE model, at least one state in the sample is assumed to be 100% efficient and the efficiency values of others are measured relative to the MES. One can also treat the individual effect in equation (3) as random by assuming that they are uncorrelated with the regressors. Therefore, the efficiency term is added with the regular noise term and the random effects (RE) method can be used to estimate the equation (3).[10] The Hausman's statistics can help choose the relevant method of estimation for a given data set.

According to the equation (5), for MES, the own revenue efficiency is 1. For others, it is less than 1. To derive transfers, the benchmark own revenue (R_1) could be either potential own revenue performance (i.e., average of top 3) or all state average revenue performance. Let the benchmark be A*. Then the percentage change in R_i, $r_i = (A^{*} - A_i)/A_i$. Following past studies, we specify the following stochastic frontier own revenue function for panel data:

$$\begin{aligned} \text{Ln } R_{it} = \alpha_i + \gamma_1 \text{ Ln } T_{it} + \beta_1 \text{ Ln } GSDP_{it} + \beta_2 \text{ Ln } NP_{it} + \beta_3 \text{ Ln } UR_{it} + \\ \beta_4 \text{ Ln } LIT_{it} + \beta_5 \text{ Ln } PC_{it} + \beta_6 \text{ TREND} + v_{it} \end{aligned} \qquad (6)$$

where R_{it} is the annual real per capita own revenue (or tax or non-tax revenue in alternate specifications) of the ith state in year t; T_{it} is real per capita Central fiscal transfers, $GSDP_{it}$ (=gross state domestic product) is real per capita income, NP_{it} is the non-primary sector share in total GSDP, UR_{it} is the urban ratio, LIT_{it} is the literacy rate, and PC_{it} is per capita power consumption. All are in log form. TREND is year trend. v_{it} is the stochastic error term.

The per capita transfers is used as a separate independent variable in the equation (6). This means that in order to determine future transfers, the impact of past transfers must be taken into account. That is, transfers become dependent on transfers themselves and it requires an endogenous treatment of transfers. To resolve the endogeneity issue, the following procedure is used. The total derivative of the equation (6) is:

$$d \ln R = d\,\alpha + \gamma_1 \, d \,\mathrm{Ln}\, T + \beta_1 \, d \ln GSDP + \beta_2 \, d \ln NP + \beta_3 \, d \ln UR + \beta_4 \, d \ln LIT + \beta_5 \, d \ln PC \quad (7)$$

Using lower case letter to denote the percentage change in respective variable, the above equation can be written as:

$$r = a + \gamma_1 \, t + \beta_1 \, gsdp + \beta_2 \, np + \beta_3 \, ur + \beta_4 \, lit + \beta_5 \, pc \quad (8)$$

Substituting (8) in (1) and solving for t, we get:

$$t = \frac{c.\frac{C_0}{T_0} - \frac{R_0}{T_0}\left(a + \beta_1 gsdp + \beta_2 np + \beta_3 ur + \beta_4 lit + \beta_5 pc\right)}{1 + \frac{R_0}{T_0} \cdot \gamma_1} \quad (9)$$

This is a dynamic formula and is flexible to derive transfers for any given year and benchmark.

The data sources for per capita real GSDP, share of non-primary sector in total GSDP and population for 29 Indian states from 2005-06 to 2018-19 (in 2011-12 prices) are CSO, MOSPI and EPW Research Foundation. The data sources for own revenues, own tax revenues, own non-tax revenues, revenue expenditure and transfers to each state are the Comptroller and Auditor General (CAG) of India Audit Reports and Finance Accounts of the state governments. Using the GSDP deflator and population of the respective states, we compute the real per capita values of fiscal variables. We extrapolate the literacy data using Census 2001 and 2011. We obtain the projected urban ratios from Office of Registrar General and Census Commissioner (2006) till 2010-11 and National Commission on Population (2019) after 2010-11. The data source for per capita power consumption is RBI's Handbook of Statistics on the State Economy. The data used is a balanced panel data with (29 x 14 =) 406 observations.

The sample states are: (i) GCS: Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand and West Bengal; and (ii) SCS: Arunachal Pradesh, Assam, Goa, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.[11] Evidences indicate that the share of 11 SCS is approximately 4.8% in total own revenues of all 29 states, 13.8% in transfers, 9% in expenditures and 5% in GSDP.

As GCS and SCS differ in their characteristics, we analyse them separately (split sample). Finally, to analyse the effect of fiscal transfers on own revenues/own tax revenues/own non-tax revenues of each state, we allow the fiscal transfer variable to interact with state dummies in an alternative specification of the model.

To determine the standardised real per capita revenue expenditure C_1 for each state in given year, we consider separate benchmark for GCS and SCs as all state average or average of top three states' real per capita revenue expenditure. Using the equations (1) and (10), the additional per capita real transfers required without and with endogeneity correction respectively for each state in a given year can be computed. Multiplying the required transfers for each state by its population and by GSDP deflator will provide the estimates of additional transfers required in nominal term for each state.

Table 1 presents the descriptive statistics of the study variables. The average real per capita revenue expenditure of SCS is 2.26 times higher than that of GCS. While the average real per capita own revenue of SCS is 1.1 times higher than that of GCS, the average real per capita transfers to SCS is almost 5 times higher than the average transfers to GCS. Thus, GCS and SCS have different fiscal characteristics, indicating that they need a separate treatment in determining transfers and a common benchmark cannot serve the purpose. The correlation analysis (not shown) indicates that a few independent variables are correlated but not perfectly, implying there is no perfect multicollinearity issue in our analyses below.

4. Empirical Results

Estimation Results of State Government Revenues

General Category States: Column 1 of table 2 report the one-way fixed effects (FE) estimation results of (log) real per capita own revenue equation (6). The effect of transfers should be either neutral or should encourage own revenue efforts of states. But the coefficient of per capita transfers (γ_1) is negative and statistically significant at 5% level, indicating a strong disincentive (or crowd-out) effect. This result is consistent with median voter model hypothesis. The parameter of real per capita income is positive and significant at 5% level. The magnitude of this coefficient indicates that a 1% increase in per capita income leads to 0.3% increase of per capita own revenue. As expected, the controlling variables, urban ratio, literacy rate, and per capita power consumption are significant and positively associated with the own revenue. Interestingly the trend coefficient is positive and statistically significantly at 5% level, indicating that the real per capita own revenue of GCS on an average grew at about 2% per annum.

Table 1: Means and Standard Deviations of the Study Variables

Variables	General Category States		Special Category States	
	Mean	S. D	Mean	S. D
	(1)		(2)	
Real Per Capita Own Revenues (₹)	6,375.82	2,985.82	7,026.92	7,746.26
Real Per Capita Own Tax Revenues (₹)	5,288.11	2,668.56	4,267.71	4,900.31
Real Per Capita Own Non-Tax Revenues (₹)	1,087.71	623.07	2,744.16	3,198.72
Real Per Capita Revenue Expenditure (₹)	10,541.29	4,215.56	23,835.4	11,717.81
Real Per Capita Transfers (₹)	3,957.67	1,887.79	19,810.7	12,213.79
Real Per Capita Income (GSDP) in ₹	82,258	39,207.13	93,324.94	69,174.83
Non-Primary Sector Share in GSDP (%)	77.05	7.53	75.67	9.10
Literacy Rate (%)	74.96	8.05	80.53	9.15
Urban Ratio (%)	32.56	11.3	29.53	15.68
Per Capita Power Consumption (kwh)	1,069.31	514.11	726.88	577.42
Sample Size (N)	252		154	

Column 2 of table 2 shows the one-way FE results of (log) real per capita own tax equation. As expected, the transfers have a strong and significant crowding-out effect on own tax effort of GCS. The FCs (and earlier PC) assigned relative weights to the tax effort in recommending transfers. But these incentives may be too low and not captured in the system to provide a crowd-in effect of transfers on own tax revenues. Both per capita GSDP and non-primary sector share are positively and significant related to own tax revenue. These variables represent the taxable capacity and structural change of the economy respectively. Increases in GSDP and non-primary sector share as a result of faster growth of industry and services sectors help contribute to the growth of own tax revenue. The trend coefficient is positive and significant, indicating that on average, the own tax revenue of GCS grew at about 3.8% per annum. The other two control variables-urban ratio and literacy rate also have positive and significant impact on own tax revenue. Column 3 presents the one-way FE results of per capita own non-tax revenue equation. The transfers are positively related to per capita own non-tax revenue, but not statistically significant even at 10% level. As expected, the per capita GSDP has a positive and significant impact on own non-tax revenue.

Table 2: Panel Model Estimation Results of Stochastic Frontier Own Revenue, Own Tax and Own Non-Tax Revenue Functions for the General Category States and Special Category States (2005-06 to 2018-19)

Variables	General Category States			Special Category States		
	1-Way FE	1-Way FE	1-Way FE	1-Way FE	1-Way FE	1-Way RE
	Own Revenue	Own Tax	Own Non-Tax	Own Revenue	Own Tax	Own Non-Tax
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-1582 (-0.800)	-1.013 (-0.59)	1.571 (1.23)	-1.914 (-1.75)	-7.617 (-6.75)	-5.978 (-2.99)
Ln Per Capita Transfers (T)	-0.109 (-2.37)	-0.149 (-3.76)	0.087 (0.60)	0.241 (2.55)	0.378 (4.66)	0.141 (1.01)
Ln Per Capita Income (GSDP)	0.279 (2.49)	0.338 (3.53)	0.417 (2.09)	0.345 (3.14)	0.302 (3.09)	0.879 (4.74)
Ln Non-Primary Sector Share (NP)	-	0.436 (2.59)	-	-	-	-
Ln Urban Ratio (UR)	0.293 (4.20)	0.107 (1.75)	-	-	-	-
Ln Literacy Rate (LIT)	1.459 (4.96)	1.089 (4.43)	-	0.982 (2.41)	1.341 (3.20)	-
Ln Per Capita Power Consumption (PC)	0.125 (1.96)	-	-	-	0.353 (3.72)	-
Trend	0.020 (2.10)	0.037 (4.56)	-	-	-	-0.072 (-5.14)
R Square	0.9786	0.9854	0.8086	0.9563	0.9697	0.7788
Hausman Statistics	19.26	58.65	87.32	127.19	41.06	8.16
State (n-1) Dummies	Included	Included	Included	Included	Included	Included

(Figures in the parentheses are t ratios).

Special Category States: Columns 4-6 of table 2 present the estimation results of own revenue efforts and its components for SCS. Interestingly, the coefficient of transfer's variable is positive in all three equations, indicating that higher the per capita transfers from the Centre, higher is the per capita own revenue, per capita own tax revenue, and per capita own non-tax revenue of SCS. However, it is significant only in own revenue and own tax revenue effort equations and not in own non-tax equation. There is, therefore, no adverse effect of transfers on the own revenue and its components of SCS. Instead of substituting for own revenue, the fiscal transfers are complements to own revenue efforts.

As expected, the per capita income is positively and significantly related to own revenue and its both components. The literacy rate is also positively and significantly associated with own revenue and own tax revenue. The power consumption has positive and significant impact on per capita own tax revenue. But the trend coefficient indicates that on average the per capita own non-tax revenue of SCS declined by about 7.5% per annum.

Results of Own Revenue Effort Equations with Transfers Interaction: Table 3 depicts the estimation results of the alternative specifications of own revenue (and its components) equations which allow interaction between the state dummies and transfers for GCS. In 7 states-Chhattisgarh, Kerala, Maharashtra, Odisha, Rajasthan, Telangana and Uttarakhand, the effect of transfers on own revenue is positive, but significant at 10% level only in Kerala, Maharashtra, and Telangana. In Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Punjab and Uttar Pradesh, the effect is negative and significant at 5 or 10% level. In Jharkhand, Madhya Pradesh, Tamil Nadu and West Bengal, the transfers' effect is negative, but not significant even at 10% level. The effects of other variables are more or less the same as in Table 2 except that the power consumption and trend variables turn out to be insignificant.

Table 3: Panel Model Estimation Results for Own Revenue Effort Equations for GCS with Transfer Interaction

Variables	1-Way FE		1- Way FE		1-Way FE	
	Own Revenue		Own Tax		Own Non-Tax	
	Coefficient	t ratio	Coefficient	t ratio	Coefficient	t ratio
Constant	-9.595	-2.78	-10.333	-3.29	2.060	1.79
Ln Per Capita Income (GSDP)	0.383	2.72	0.449	3.55	0.209	1.06
Ln Non-Primary Sector Share (NP)	-	-	0.456	2.10	-	-
Ln Urban Ratio (UR)	0.270	3.09	0.186	2.37	-	-
Ln Literacy Rate (LT)	3.144	4.57	2.811	4.49	-	-
Ln Per Capita Power Consumption (PC)	-0.003	-0.05	-	-	-	-
Trend	-0.001	-0.10	0.008	0.66	-	-
R Square	0.9999		0.9999		0.999	
Hausman Statistics	136.76		109.47		139.48	
General Category States						
Andhra Pradesh*Ln Per Capita Transfers	-0.270	-4.90	-0.192	-3.71	-0.670	-3.35
Bihar*Ln Per Capita Transfers	-0.493	-2.49	-0.565	-3.24	0.840	2.52
Chhattisgarh*Ln Per Capita Transfers	0.064	0.93	-0.029	-0.49	0.383	1.93
Gujarat *Ln Per Capita Transfers	-0.144	-1.94	-0.247	-3.70	0.437	1.64
Haryana * Ln Per Capita Transfers	-0.382	-4.78	-0.382	-5.25	-0.348	-1.19
Jharkhand*Ln Per Capita Transfers	-0.137	-1.39	-0.246	-2.85	0.729	3.41
Karnataka *Ln Per Capita Transfers	-0.199	-2.77	-0.261	-3.95	-0.287	-1.10
Kerala*LN Per Capita Transfers	0.185	1.91	-0.038	-0.43	1.559	6.49
Madhya Pradesh*Ln Per Capita Transfers	-0.001	-0.02	-0.002	-0.02	0.231	0.95
Maharashtra*Ln Per Capita Transfers	0.150	1.83	0.133	1.84	-0.154	-0.61
Orissa *Ln Per Capita Transfers	0.062	0.83	-0.047	-0.71	0.665	2.69
Punjab*Ln Per Capita Transfers	-0.241	-3.50	-0.133	-2.16	-0.590	-2.75
Rajasthan*Ln Per Capita Transfers	0.030	0.38	-0.039	-0.53	0.485	1.81
Tamil Nadu*Ln Per Capita Transfers	-0.055	-0.67	-0.190	-2.53	0.429	1.51
Telangana*Ln Per Capita Transfers	0.313	3.24	0.189	2.14	0.667	1.89
Uttar Pradesh* Ln Per Capita Transfers	-0.205	-1.95	-0.355	-3.75	0.860	3.07
Uttarakhand* Ln Per Capita Transfers	0.159	1.40	0.046	0.43	0.383	0.93
West Bengal*Ln Per Capita Transfers	-0.013	-0.17	-0.002	-0.03	-0.476	-2.02
State Effect	Included		Included		Included	

In own tax revenue equation, only in Maharashtra and Telangana, the transfers positively and significantly relate (at least 10%) to own tax. In Chhattisgarh, Kerala, Odisha, Rajasthan, Uttarakhand and West Bengal, transfers variable is not significant. In the remaining 10 states, it has negative impact. In the own non-tax revenue equation, the effect of transfers is positive in Bihar, Chhattisgarh, Gujarat, Jharkhand, Kerala, Odisha, Rajasthan, Telangana, and Uttar Pradesh. It is negative in Andhra Pradesh, Punjab, and West Bengal and in remaining 6 states, it is zero.

Table 4 shows the estimation results of own revenue effort equations allowing interaction of transfers with state dummies for SCS. The transfers had a crowd-in (positive and significant) effect on own revenue effort in Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura. In the remaining 5 SCS, it had no impact. The transfers crowd-in own tax revenue of Arunachal Pradesh, Goa, Himachal Pradesh, Manipur, and Mizoram, but crowd out in Jammu & Kashmir and Sikkim. In the own non-tax revenue equation, the effect of transfers is positive in Jammu & Kashmir, Meghalaya, Nagaland, and Tripura and in the remaining states, it is not significant.

Table 4: Panel Model Estimation Results of SCS with Transfer Interaction

Variables	1-Way FE		1-Way FE		1-Way FE	
	Own Revenue		Own Tax		Own Non-Tax	
	Coefficient	t ratio	Coefficient	t ratio	Coefficient	t ratio
Constant	-2.106	-1.46	-13.236	- 12.07	-3.073	-0.70
Ln Per Capita Income (GSDP)	0.284	1.64	0.241	2.07	0.658	1.69
Ln Non-Primary Sector Share (NP)	-	-	-	-	-	-
Ln Urban Ratio (UR)	-	-	-	-	-	-
Ln Literacy Rate (LT)	0.745	1.08	3.585	7.41	-	-
Ln Per Capita Power Consumption (PC)	-	-	-0.040	-0.53	-0.093	-0.41
Trend	-	-	-	-	-0.045	-1.77
R Square	0.9997		0.9999		0.889	
Hausman Statistics	62.750		215.380		36.060	
Special Category States						
Arunachal Pradesh*Ln Per Capita Transfers	-0.224	-1.10	0.435	3.28	-0.513	-1.38
Assam *Ln Per Capita Transfers	0.328	1.59	-0.007	-0.05	0.505	1.22
Goa *Ln Per Capita Transfers	0.173	1.63	0.206	2.94	0.032	0.16
Himachal Pradesh * Ln Per Capita Transfers	0.255	1.33	0.335	2.67	-0.045	-0.12
Jammu & Kashmir *Ln Per Capita Transfers	0.712	2.19	-0.426	-2.02	2.108	3.56
Manipur *Ln Per Capita Transfers	0.612	2.06	1.335	6.73	-0.405	-0.62
Meghalaya *Ln Per Capita Transfers	0.577	2.75	0.135	0.99	0.688	1.75
Mizoram *Ln Per Capita Transfers	0.784	3.16	1.417	8.64	0.479	1.14
Nagaland*Ln Per Capita Transfers	0.629	2.54	0.191	1.18	0.843	1.84
Sikkim *Ln Per Capita Transfers	-0.098	-0.30	-0.545	-2.48	-0.211	-0.31
Tripura*Ln Per Capita Transfers	0.970	3.45	0.271	1.46	1.190	2.18
State Effect	Included		Included		Included	

State-wise Efficiency Scores

Table 5 shows the state-wise efficiency scores using the coefficients of state dummies (effects) from Table 2 (not shown). The overall mean own revenue efficiency score for GCS is 74.67%, indicating that on an average the GCS approximately utilised only about 75% of their own revenue potential during the study period. Therefore, it could be possible for them to raise their existing own revenues by 25% more with existing resource bases. The efficiency scores varied widely from 42.18% (in West Bengal) to 100% (in Andhra Pradesh). The estimated mean own tax revenue efficiency score for GCS is about 72% and the scores also varied widely between 35.2% (in Bihar) and 100% (in Andhra Pradesh). The overall mean own non-tax revenue efficient score is 64.44%. Bihar obtained the lowest score of 13.18% while Haryana achieved 100%. In the case of SCS, the average own revenue efficiency score is only 29.19%, indicating that there is a greater possibility for them to improve their own revenues. The estimated mean own tax revenue efficiency score is 38.96% and the mean own non-tax revenue efficiency score is 64%.

Table 5: State-wise Own Revenue, Own Tax and Own Non-Tax Efficiency Scores

GCS	Own Revenue	Own Tax	Own Non-Tax	SCS	Own Revenue	Own Tax	Own Non-Tax
Andhra Pradesh	100.00(1)	100.00(1)	67.73(8)	Arnica Pradesh	26.63(5)	22.13(8)	100.00(1)
Bihar	49.32 (17)	35.48(18)	13.48(18)	Assam	25.62(6)	66.98(2)	80.06(3)
Chhattisgarh	87.38(4)	80.69(7)	99.03(2)	Goa	100.00(1)	100.00(1)	90.58(2)
Gujarat	68.99(13)	76.14(8)	66.82(9)	Himachal Pradesh	36.33(2)	46.32(4)	52.22(7)
Haryana	92.74(3)	91.56(4)	100.00(1)	Jammu & Kashmir	31.81(4)	46.82(3)	49.28(9)
Jharkhand	55.92(16)	42.19(17)	75.97(7)	Manipur	10.89(10)	19.31(9)	51.67(8)
Karnataka	86.51(5)	92.23(3)	39.43(16)	Meghalaya	19.42(7)	30.29(6)	45.30(10)
Kerala	66.81(14)	69.13(12)	56.31(11)	Mizoram	12.81(8)	13.64(11)	69.31(5)
Madhya Pradesh	69.86(12)	67.81(13)	62.24(10)	Nagaland	10.66(11)	18.01(10)	54.28(6)
Maharashtra	70.02(11)	75.32(9)	53.32(13)	Sikkim	34.19(3)	35.04(5	79.34(4)
Orissa	79.32(8)	64.41(14)	92.85(3)	Tripura	12.69(9)	30.06(7)	32.31(11)
Punjab	80.27(7)	83.43(5)	90.36(4)				
Rajasthan	85.74(6)	74.20(10)	81.97(6)				
Tamil Nadu	72.89(10)	83.20(6)	50.49(15)				
Telangana	97.71(2)	92.76(2)	85.44(5)				
Uttar Pradesh	64.39(15)	53.40(15)	53.07(14)				
Uttarakhand	73.29(9)	71.30(11)	55.00(12)				
West Bengal	42.89(18)	44.42(16)	16.39(17)				
Mean TE%	74.67	72.09	64.44	Mean TE%	29.19	38.96	64.03

Figures in parentheses are ranks.

Determining Fiscal Equalisation Transfers

To derive how much additional transfers (in current prices) are required for each state to provide the same amount of public services (under revenue head) in 2018-19, given their bench mark own revenue effort, we consider four scenarios on the following parameters (i) top 3 states' average own revenue effort and top 3 states' average revenue expenditure (Scenario 1); (ii) top 3 average own revenue effort and average level of public services (Scenario 2); (iii) average own revenue effort and average expenditure bundle (Scenario 3); and (iv) average own revenue effort and top 3 average level of public services (Scenario 4). Table 6 presents the derived additional transfers required in four alternative scenarios with and without endogeneity bias correction. After the endogeneity bias correction, the additional transfers required for all 29 states, considering both top 3 average own revenue effort and level of public services is ₹10,656 billion (5.8% of GSDP of 29 states) in Scenario 1, ₹1,072 billion (0.6%) in Scenario 2, ₹4,716 billion (2.57%) in Scenario 3 and ₹15,948 billion (8.68%) in Scenario 4.

Without endogeneity correction, the additional transfers required in respective scenarios worked at ₹12,026 billion, ₹3,769 billion, ₹5,877 billion, and ₹16,247 billion. The actual transfers to these 29 states in 2018-19 was ₹11,933 billion (i.e., 6.5% of GSDP). To start with, the Centre can consider the Scenario 3 (Australia also considers the average benchmarks). Under this Scenario, 17 out of 29 states would get additional transfers. Over the years, the Centre may target to reach Scenario 1.

5. Summary and Policy Conclusion

In this study, an attempt has been made to design an appropriate methodology to determine the transfers from the Centre to state governments in India. It has considered a normative approach to fiscal transfers with reference to the principle of equalisation as it is consistent with both efficiency and equity. Specifying the stochastic own revenue function, this study has estimated the own revenue potentials of 29 state governments from 2005-06 to 2018-19. As fiscal attributes have varied among small and hilly states (SCS) and larger or General category states (GCS), it has considered separate benchmarks for these two groups of states.

The empirical results indicate a strong disincentive or the crowding-out effect of transfers on own revenue and own tax effort of GCS and a strong incentive or crowding-in effect on own revenue and own tax revenue effort of SCS. Results also indicate that in Kerala, Maharashtra, Telangana, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland and Tripura, the fiscal transfers significantly and positively contribute to the own revenue effort. In Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Punjab and Uttar Pradesh, the transfers effect is negative.

The study determines fiscal equalisation transfers under four alternative scenarios with and without endogeneity corrections. With endogeneity correction, the total additional transfers required for all 29 states in 2018-19 (nominal prices): (i) under Scenario 1, which considers top 3 states' average own revenue effort and top 3 states' average revenue expenditure was ₹1,06,565 billion; (ii) in Scenario 2, which uses top 3 average own revenue effort and all states' average benchmark revenue expenditure, was ₹1,072 billion; (iii) under Scenario 3, which considers average own revenue effort and average expenditure needs, was ₹4,716 billion (this is consistent with the Australian approach which equalises with respect to average benchmarks); and (iv) under Scenario 4, which considers average own revenue effort and top 3 states' average revenue expenditure, was ₹15,948 billion.

In 2018-19, the Centre's actual gross revenue receipts (GRR) was ₹25,679 billion and the actual transfers to all 29 States was ₹11,933 billion (i.e., 46.47% of GRR). It could be possible for the Centre to fully or mostly equalise these transfers. To start with, it could consider Scenario 3. In the long run, the Centre could aim at reaching Scenario 1. Thus, our analyses broadly indicated the relevance of the First-Generation Theorem which suggests the importance of equalisation transfers.

Table 6: Equalization Transfers for Indian States with and without Endogeneity Bias in 2018-19 (₹ Crore=10 million)

States	Top 3 Avg. Revenue Effort &Top 3 Avg. Expenditures		Top 3 Avg. Revenue Effort & Average Expenditures		Average Revenue Effort & Average Expenditures		Average Revenue Effort & Top 3 Avg.Expenditures	
	Without Endogeneity Correction	With Endogeneity Correction	Without Endogeneity Correction	With Endogeneity Correction	Without Endogeneity Correction	With Endogeneity Correction	Without Endogeneity Correction	With Endogeneity Correction
General Category States								
Andhra Pradesh	28,471	16,887	0	0	806	0	42,295	41,476
Bihar	2,07,433	1,42,236	1,09,864	40,871	1,24,924	68,302	2,22,493	1,65,861
Chhattisgarh	14,927	3,746	0	0	238	0	22,309	15,273
Gujarat	15,556	62,521	0	0	0	34,811	45,575	84,568
Haryana	5,403	22,710	0	0	0	11,506	17,476	35,262
Jharkhand	39,334	30,360	10,759	0	19,871	11,077	48,446	40,060
Karnataka	21,414	43,651	0	0	0	19,979	47,936	74,971
Kerala	0	0	0	0	0	0	0	11,722
Madhya Pradesh	1,10,224	80,027	36,452	0	56,354	29,913	1,30,126	1,04,729
Maharashtra	0	74,670	0	0	0	39,111	61,094	1,35,350
Orissa	26,882	7,240	0	0	6,667	0	39,333	25,863
Punjab	4,652	9,408	0	0	0	0	15,454	22,327
Rajasthan	54,611	18,006	0	0	12,371	0	74,237	47,629
Tamil Nadu	0	25,057	0	0	0	0	20,229	63,199
Telangana	20,482	27,621	0	0	6,133	15,430	37,409	48,013
Uttar Pradesh	3,37,640	2,22,602	1,46,315	11,965	1,97,980	1,00,530	3,89,304	2,93,682
Uttarakhand	0	0	0	0	0	0	0	1,181
West Bengal	78,098	87,001	0	0	26,942	26,014	1,11,343	1,12,146
All GCS total	9,65,127	8,73,742	3,03,391	52,836	4,52,286	3,56,673	13,25,061	13,23,312
Special Category States								
Arunachal Pradesh	0	0	0	0	0	0	0	0
Assam	1,54,995	1,20,771	70,309	46,996	96,374	79,691	181059	1,53,466
Goa	2,536	3,548	0	1,199	955	5,357	4258	7,707
Himachal Pradesh	14,463	12,379	0	0	4,913	7,275	22381	22,844
Jammu& Kashmir	34,642	22,439	0	0	11,211	8,521	46966	41,259
Manipur	10,593	11,705	1,659	3,041	4,738	5,034	13672	13,698
Meghalaya	10,239	9,284	1,545	1,168	4,708	4,336	13402	12,451
Mizoram	0	0	0	0	0	0	0	160
Nagaland	1,307	3,383	0	0	0	0	4164	4,901
Sikkim	0	0	0	0	0	0	304	967
Tripura	8,733	11,315	0	1,955	3,545	4,701	13393	14,062
All SCS total	2,37,507	1,94,824	73,513	54,359	1,26,444	1,14,916	299599	2,71,515
All States Total	12,02,634	10,68,566	3,76,903	1,07,195	5,78,730	4,71,589	1624660	15,94,827

To our knowledge, this is the first empirical study to show the state specific effect of transfers on own revenues/own tax revenues of Indian states and provides the estimates of normatively determined transfers for GCS and SCS in India. The advantage of this approach is that it provides a single measure of transfers instead of the existing complicated formula to determine transfers. It is also simple to implement. The benchmark levels can be altered based on funding availability. It takes into account the actual population, same amounts of public services to all citizens and is free from endogeneity bias that arise due to the impact of the past transfers on current transfers. It also provides an incentive for the states to collect their own revenues efficiently. This is the complement to the existing transfers system and not the substitute. Further, Once the equalisation transfers are given to the states, the expenditure gap or need will reduce or eliminate in the next and subsequent years which will reduce the transfers burden of the centre subsequently.

It is noted that based on the recommendations of each FC, the centre distributed the transfers to states. But FCs did not evaluate how the transfers were utilized and whether the transfers helped the laggard states to provide adequate level of services. That is why Rao (2019) commented that general purpose transfers are given to enable the states to provide comparable levels of public services at comparable tax effort and specific purpose transfers are given to ensure a minimum standard of public services. The shortcomings in both the design and implementation of the transfers system in India hinder its ability to achieve the objectives. Therefore, before distributing the equalization transfers, for each state the union government needs to identify the revenue heads/sectors where these transfers should be spent. After a year, it is necessary to evaluate how much revenue gap is reduced before determining the equalisation transfers for the next year.

Nevertheless, the study is not free from limitations. First, it considers only revenue equalisation and does not consider the capital expenditure. The reason is that the FRBM Act allows the states to borrow 3% of their GSDP for investment purposes. In the Australian model, the capital expenditure needs are supplemented by an elaborate framework of distribution of loans for the states. This study, therefore, ignores this. Second, the study shows that own revenue efficiency scores of 10 GCS and 7 SCS are below the mean efficiency level and own tax efficiency scores of 8 GCS and 7 SCS are below the mean efficiency level. One may ask how we can improve their revenue efficiency. These states need to avail appropriate consultancy from either neighbouring better performing states or from the Centre or from fiscal experts for improving their performances. Third, this study considers a normatively determined revenue effort but not normatively determined revenue expenditure. As stated in end note 6 of this study, the difference of our estimates from the normatively determined expenditure is minimum. Fourth, it computes spending needs based on benchmark expenditure. This may provide an adverse incentive or favour the gap-filling approach. Lastly, the results are sensitive based on benchmark.

Despite these limitations, we hope that the findings of this study are useful to policy makers, international agencies and other researchers to take appropriate strategies to design effectively equalisation transfers policy to Indian states such that all citizens can avail comparable standard level of public services.

References

Allers, M., de Haan, J., and Sterks, C. 2001. Partisan influence on the local tax burden in the Netherlands. Public Choice 106 (3–4): 351–363.

Aigner, D.J., Lovell, C.A.K., and Schmidt, P. 1977. Formulation and estimation of stochastic frontier production function models. Journal of Econometrics 6: 21-37.

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Alfirman, Luky 2003. Estimating stochastic frontier tax potential: Can Indonesian local governments increase tax revenues under decentralization. CFEA Working Paper No. 03-19, University of Colorado at Boulder.

Alm, J., and Duncan, D. 2014. Estimating tax agency efficiency. Public Budgeting and Finance 34: 92–110.

Bahl, R., Martinez-Vazquez, J. and Sjoquist, D.L. 1992. Central city-suburban fiscal disparities. Public Finance Quarterly 20: 420-432.

Baretti, C., Huber, B., and Lichtblau, K. 2002. A tax-on-tax revenue: the incentive effects of equalizing transfers: evidence from Germany. International Tax and Public Finance 9: 631– 649.

Battese, E.C. and Coelli, T.J. 1992. Frontier production functions, technical efficiency and panel data: with application to paddy farmer in India. Journal of Productivity 3: 153-69.

Blair, P. 1992. Financial equalization between local and regional authorities in European countries. Local Government Studies 18: 7- 27.

Bird, Richard M., and Smart, M. 2002. Intergovernmental fiscal transfers: International lessons for developing countries. World Development 30(6): 899-912.

Boadway, R. 1980. Intergovernmental Fiscal Transfers in Canada. Toronto, Canada: Canadian Tax Foundation.

Boadway, R. 2004. The theory and practice *of* equalization. CESifo Economic Studies 50: 211-254.

Boadway, R and Frank Flatters. 1991. Federal-provincial relations revisited: Consequences of recent constitutional and policy developments, in McMillan: 87-121.

Boadway, R., Sandra, R. and Anwar Shah. 1993. The reform of fiscal systems in developing countries: A federalism perspective. Paper presented at the Conference on Fiscal Reform and Structural Change, New Delhi.

Boex, J. and Martinez-Vazquez, J. 2004. Designing intergovernmental equalization transfers with imperfect data: Concepts, practices, and lessons. Georgia State University Working Paper No. 04-21.

Bradford, D.F. and Oates, W.E. 1971. The analysis of revenue sharing in a new approach to collective fiscal decisions. Quarterly Journal of Economics 85: 434-48.

Buchanan, J.M. 1950. Federalism and fiscal equity. American Economic Review 40: 583-599.

Buchanan, J, M. 1952. Federal grants and resource allocation. Journal of Political Economy 60: 208-17.

Cornwell, Christopher, Schmidt, Peter and Sickles, R.C. 1990. Production frontiers with cross sectional and time series variation in efficiency levels. Journal of Econometrics 46: 185-200.

Courchene, T.J. 1978. Avenues of adjustment: The transfer system and regional disparities. In Canadian Confederation at the Crossroads: The Search for Federal-Provincial Balance. Walker, M., ed., 145-86. Vancouver: The Fraser Institute.

Cyan, M. R., Martinez-Vazquez, J., and Vulovic, Violeta. 2013. Measuring tax effort: Does the estimation approach matter and should effort be linked to expenditure goals. International Centre for Public Policy-Andrew Young School of Policy Studies Working Paper, Georgia State University, Atlanta.

Dahlberg, M., Mork, E., Rattese, J., and Agren, H. 2007. Using a discontinuous grant rule to identify the effect of grants on local taxes and spending. Journal of Public Economics 92(12): 2320–2335.

Dash, B. B., and Raja, A.V. 2009. Institutions and the quality of governance: An empirical study on interstate differences in economic development in India. Asia-Pacific Developmental Journal 16:1–26.

Farrell, M.J. (1957). The measurement of productive efficiency. Journal of Royal Statistical Society 120: 253-81.

Hansjörg, Blöchliger and Claire, Charbit. 2008. Fiscal Equalisation. OECD Economic Studies 44: 1-22.

Jha, Raghbendra. 1999. Tax efficiency in selected Indian states. Empirical Economics 24: 641-54.

Jha, Raghbendra and Sahni, Balbir S. 1997. Tax efficiency and productivity analysis: The case of Canadian fiscal federalism. Public Finance 52(2): 186-197.

Jondrow J, Lovell C.A.K., Materov, I.S and Schmidt, P. 1982. On the estimation of technical inefficiency in the stochastic frontier production model. Journal of Econometrics 19: 233-238.

Kumbhakar, S. 1990. Production frontiers and panel data and time varying technical inefficiency. Journal of Econometrics 46: 201-211.

Ladd, H. F. 1994. Measuring disparities in the fiscal condition of local governments. In Fiscal Equalization for State and Local Government Finance, Anderson, J.E. ed., pp.21-54. Praeger, Westport, CT.

Ladd, H. and Yinger, J. 1994. The case of equalization aid, National Tax Journal XLVII: 211- 224.

Ma, Y. 1997. Intergovernmental fiscal transfers in nine countries: Lessons for developing countries. World Bank Policy Research Working Paper No. WP 1822.

Maarten Allers and Ishemoi Lewis, J. 2011. Equalizing spending needs of sub-national governments in a developing country: the case of Tanzania. Environment and Planning: Government and Policy 29: 487-501.

Martinez-Vázquez, J. and Searle, B. 2007. Fiscal Equalization: Challenges in the Design of Intergovernmental Transfers. Springer Science & Business Media.

Meeusen, W. and Broeck, J.V.D. 1977. Efficiency estimation from Cobb Douglas production function with composed Error. International Economic Review 18: 435-44.

Mogues, Tewoda J., and Benin, Samuel. 2012. Do external grants to district governments discourage own revenue generation? A look at local public finance dynamics in Ghana. World Development 40(5): 1054-67.

Munoz, Andres Felipe, Gustavo Axel Radics and Claudia Bone. 2016. Sub-national fiscal disparities and intergovernmental transfers in LAC. Review of Public Economics 219 (4): 35-66.

Musgrave, Richard. (1959). Theory of Public Finance: A Study in Public Economy. New York, USA: McGraw-Hill.

Naganathan, M., and Sivagnanam, K.J. 2000. Federal transfers and tax efforts of states in India. The Indian Economic Journal 47: 101–110.

Oates, Wallace E. 1972. Fiscal Federalism. New York, USA: Harcourt Brace Jovanovich Inc,

Oates, W. 1999. An essay on fiscal federalism. Journal of Economic Literature 37 (3): 1120-1149.

Panda, P. K. 2009. Central fiscal transfers and states' own revenue efforts in India: panel data models. Margin: The Journal of Applied Economic Research 3(3: 223-242.

Pessino, C., and Fenochietto, R. 2010. Determining countries' tax effort. Hacienda Pu´blica Espan˜ola/Revista de Economı´a Pu´blica 195: 61–68.

Pessino, C., and Fenochietto, R. 2013. Understanding countries' tax effort. Fiscal Affairs Department, International Monetary Fund Working Paper No. WP/13/244, Washington, DC.

Piancastelli, M. 2001. Measuring the tax effort of developed and developing countries: Cross country panel data analysis-1985/95. IPEA Working Paper No. 818.

Purohit, M. C. 2006. Tax efforts and taxable capacity of central and state governments. Economic and Political Weekly 41: 747–51.

Rangarajan, C., and Srivastava, D.K. 2004. Fiscal transfers in Australia: Review and relevance to India. Economic and Political Weekly: 3709-3722.

Ridge, M. 1992. Local government finance and equalization: the case of Ireland. Fiscal Studies 13: 54- 73.

Roa, Govinda M. 2019. Redesigning the fiscal transfers system in India. Economic & Political Weekly 31: 52-60.

Sandhya Garg, Goyal, Ashima, and Pal, Rupayan. 2016. Why tax effort falls short of tax capacity in Indian states: A stochastic frontier approach. Public Finance Review: 1-28

Saraf, Richa and Srivastava, D.K. 2009. Determining general and specific purpose transfers: An integrated approach. Madras School of Economic Working Paper No. 40, Chennai.

Sarma, J.V.M. 1991. Panel data models and measurement of states' tax effort in India. Journal of Quantitative Economics 7(1): 145–64.

Schmidt, P. and Sickles, R.C. 1984. Production frontiers and panel data. Journal of Business and Economic Statistics 2: 367-74.

Scott, Anthony D. 1952. Federal grants and resource allocation. Journal of Political Economy 60: 534-538.

Shah, Anwar. 1988. Capitalization and the theory of local public finance: An interpretive essay. Journal of Economic Surveys 2 (3): 209-243.

Shah, Anwar. 1994. A fiscal needs approach to equalization transfers in a decentralized federation. World Bank Policy Research Working Paper No.1289.

Skidmore, M. 1999. Tax and expenditure limitations and the fiscal relationship between state and local governments. Public Choice 99(1–2): 77–102

Sole´-Olle´, A. 2006. The effects of party competition on budget outcomes: Empirical evidence from local governments in Spain. Public Choice 126(1): 145–176.

Spahn, P. 2007. Equity and efficiency aspects of interagency transfers in a multi-government framework. In Intergovernmental Fiscal Transfers: Principles and Practice, R. Boadway and A. Shah, ed., The World Bank.

Tiebout, Charles M. 1956. A pure theory of local expenditures. Journal of Political Economy 64 (5): 416-424.

Vaillancourt, Francois and Richard Bird. 2005. Expenditure-based equalization transfers. ITP Working Paper No.0512.

Vailliancourt Francois and Richard Bird. 2007. The interregional incidence of central budgets in federation: Some evidence from Canada. Public Budgeting and Finance 27(1): 1-19.

Zhuravskaya, E. V. 2000. Incentives to provide local public goods: Fiscal federalism, Russian style. Journal of Public Economics 76(3): 337–368.

Notes

[1]Boadway, Sandra and Shah (1993) argue that the equalization transfers that reduce net fiscal benefit differentials create one of those rare instances in economics when equity and efficiency considerations coincide. Other considerations used for equalization transfers include the prevention of secessionist tendencies in countries with relatively high regional tension (Spahn, 2007; Martinez-Vazquez and Searle, 2007).
[2]As per the XVth Finance Commission Report, Vol. IV The States, October 2020.
[3]While the approach pursued by the Finance Commission has an equalising content, none of the Commission so far has formulated an explicit methodology on normative basis to derive the equalisation transfers. The partial gap filling approach also creates a potential adverse incentive among states. Further, the cost conditions are only partially equalized. Thus, the goal of horizontal equalisation remains fundamentally unachieved in India.
[4] Pessino and Fenochietto (2010, 2013) employed the SFA to estimate the tax capacity of 96 countries. Cyan, Martinez-Varquez and Vulovic (2013) compute the tax capacity of 94 countries using the SFA. Alm

and Duncan (2014) estimates the tax efficiency of OECD and select non-OECD nations using both DEA and SFA. Jha and Sahni (1997) used Cornwell et al., (1990)'s time varying stochastic frontier approach to measure the tax efficiency of Canadian provincial governments for the period 1971 to 1993. Alfirman (2003) applied the frontier model for cross section data to measure the tax efficiency of provincial governments in Indonesia from 1996 to 1999.

[5] Studies such as Allers, de Haan and Sterks (2001) and Sole-Olle (2006) considered political economy factors. A few other studies use natural, social and demographic factors as determinants of local revenues. For instances, regions with larger natural resources are more likely to generate larger revenues through royalties from mining etc. Regions with greater non-farm economic activities may be able to collect more fees and tax revenues.

[6] Various approaches can be used to measure the expenditure need as explained in Section 2. This study uses a simple procedure due to space constraints. In the initial estimations, this study has measured the spending needs of states based on a panel regression results of revenue expenditure equation. However, differences in the estimates in the simple measure and the panel regression-based one are small. Results are available with authors on request.

[7].

$$T_1 - T_0 = C_1 - R_1 - (C_0 - R_0)$$

$$T_1 - T_0 = \frac{(C_1 - C_0)C_0}{C_0} - \frac{(R_1 - R_0)R_0}{R_0}$$

Dividing by T_0 throughout, we get:

$$\frac{T_1 - T_0}{T_0} = c\,\frac{C_0}{T_0} - r\,\frac{R_0}{T_0}$$

[8] As state governments generate own revenues from their own tax sources like state VAT/GST, sales tax, motor vehicle tax, stamp and registration duties, state excise etc. and from their own non-tax sources including fee, fines etc, specifying and estimating source specific revenues are difficult task.

[9] This procedure estimates a separate intercept for every state by suppressing the overall intercept term and by adding a dummy variable for each of the N sample states or equivalently by keeping the overall intercept and adding N-1 dummies.

[10] Given the GLS estimates of β say $\hat{\beta}$ one can recover the estimate the individual state intercept, $\hat{\alpha}_i$ from the residuals. Let $\varepsilon_{it} = y_{it} - x_{it}'$. Then one can estimate $\hat{\alpha}_i$ from the mean (overtime) of the residual for state i as: $\hat{\alpha}_i = (1/T)\ \Sigma_t \hat{\varepsilon}_{it}$; i=1,2,...,N. Then one can get max ($\hat{\alpha}_i$) and $\hat{u}_i$ and finally, exp ($-\hat{u}_i$) as explained above.

[11] Almost all SCS are small and hilly states except Goa which is a small state but not a hilly. In the GCS, all states are major Indian states including Uttarakhand which is also a hilly state.

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Assessing the viability of an Indian Central Bank Digital Currency (CBDC)

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Abstract

A large number of Central Banks around the world are planning to introduce Central Bank Digital Currencies (CBDCs) as a legal tender in their countries. The Reserve Bank of India (RBI) has also revealed similar plans, with an Indian CBDC expected in the near future. Any evaluation of such a major change in the nature of money requires a broader understanding of the opportunities and challenges arising from the adoption of CBDCs. In this paper, we discuss these issues at the conceptual level and specifically in the Indian context. We show that the conceptual issues can be characterised in three ways – monetary sovereignty issues, issues from the point of view of national sovereignty, and developmental issues. In the Indian context, we analyse these issues from the perspective of the rapid digitalization taking place in the country. Finally, we discuss the steps that the RBI needs to take in order to introduce an Indian CBDC.

Keywords: CBDCs; Monetary Sovereignty; Disintermediation; Dollarization; Financial Inclusion; Cryptocurrencies

JEL Codes: E42, E51, E58, G21, G28, O33

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1 Introduction

Interest around Central Bank Digital Currencies, or CBDCs, is now a global phenomenon. They have become an important part of the discussion on digitalisation of economies, including the rapid changes in the payments landscape, as well as in the nature of money itself. (Barontini & Holden, 2019) Increasingly, CBDCs are being seen as the next step in the evolutionary progression of (fiat) money - from cowries and shells, to coins and paper money, and now, to digital representations of fiat currencies. (Annual Economic Report, BIS, 2020)

Many central banks across the world are examining the feasibility of introducing CBDCs. Some have reached significant milestones. Sweden and China, representing a major advanced and a major emerging market and developing economy[2] (EMDE) respectively, began undertaking pilots of digital versions of their respective sovereign currency. In October 2020, The Bahamas became the first country in the world to issue a central bank digital currency – the 'Sand Dollar' - for retail use. More recently, in April this year, the Eastern Caribbean Currency Union became the first currency union central bank to issue DCash – a blockchain based digital version of the Eastern Caribbean Dollar. (Marsh, 2021)

In India, an Inter-Ministerial Committee (which included India's central bank among its members) briefly examined the implications of CBDCs in general in its report. (Inter-ministerial Committee Report, 2019) Although it observed that *the advantages of introducing CBDCs in the context of India were unclear*, it recommended an open mind towards introducing one in the future. Further, the central bank i.e., the Reserve Bank of India (RBI) is reportedly working on a model for CBDCs (PTI, 2021) and a phased implementation (Sankar, 2021). The RBI is also expected to issue an Indian CBDC, or a "digital rupee", in the financial year 2022-23. (Moneycontrol, 2022) However, there is relatively less information available in public domain about RBI's detailed thinking on this subject.

It is in this context that we examine the prospect of introducing a CBDC in India. We start by discussing how to think about CBDCs, particularly in terms of various definitions and alternative institutional designs (Section 2). Next, we focus on the factors that either justify or caution against the introduction of such an institutional change in our monetary and financial system. These are analysed from three distinct perspectives: of monetary sovereignty (Section 3), of sovereign nations in general (Section 4), and from the point of view of developmental agenda of developing countries (Section 5) respectively. Next, we analyse the pros and cons of adopting CBDCs specifically from an Indian perspective and draw conclusions (Section 6). Finally, we identify some broad steps that the RBI may need to consider in the immediate to short term as it seeks to introduce a digital rupee this financial year (Section 7).

2. Definitions and Designs

What are CBDCs? The Bank for International Settlements (BIS), defines CBDCs by contrasting them with existing forms of central bank money viz. as a '*a digital form of central bank money that is different from balances in traditional reserve or settlement accounts*'. (CPMI-MC, 2018) This definition distinguishes CBDCs from the other two forms of central bank money, namely physical cash (which, as opposed to CBDCs, is not digital in form) and reserve/settlement accounts (which, while digital in form, are accessible only to select financial institutions like banks, whereas CBDCs are intended for wider access or use). There is also another form of money which is indeed digital, namely the money created by the banking system; however, this is not central bank money.

The above broad definition is based on the identity of the issuer (central bank vs. private entities) and form (digital vs. physical). Within this broad definition, the BIS also goes on to identify different types of CBDCs based on two other criteria of accessibility (restricted, like central bank reserves currently, or wide access like cash) and technology (account or token based) viz.,

- A *token-based 'general purpose' CBDC* that is available primarily for retail transactions, but may also be available for broader use.
- A *token-based 'wholesale' CBDC* whose availability is restricted and used for wholesale payment and settlement transactions.
- An *account-based 'general purpose' CBDC* that is widely accessible.

Apart from the BIS definition, there are other definitions of CBDCs in use; the criteria these highlight depend, *inter alia,* on the focus of their research and experimentation, or centrality of certain features to the definition of CBDCs. For example, the *Bank of England* defines CBDCs as 'an electronic form of central bank money that could be used by households and businesses to make payments and store value.' (Bank of England, 2020) That is, the focus is on retail access only. (Ibid)[3] The RBI defines CBDCs as "a legal tender and a central bank liability in digital form, denominated in sovereign currency and appearing on central bank balance sheet'. (RBI, 2021) According to them, CBDCs are a form of electronic currency that are exchangeable at par with similarly denominated cash and traditional central bank deposits.

The International Monetary Fund (IMF) offers another definition, or rather design, to help address concerns around potential disintermediation of the banking system due to CBDCs. The *synthetic CBDC,* or *sCBDC,* essentially replicates or preserves the current two-tier architecture of monetary and payments system by allowing private sector entities to issue the currency or payment instruments (such as stablecoins) which represent their liabilities, and then back the same with central bank reserves. In a report released last year, however, the BIS along with seven central banks -- including the European Central Bank and the Federal Reserve -- have rejected a sCBDC as a true CBDC. Instead, they define CBDCs strictly as a digital payment instrument, denominated in the national unit of account, that is a *direct liability of the central bank.* (Bank of Canada *et. al.*, 2020)

In terms of possibilities, CBDCs could be designed as:

- a *direct CBDC,* where the central bank is entirely in charge, from issuance to maintenance of ledger and compliance with laws.
- a *hybrid CBDC,* where the CBDC represents a direct claim on the central bank, like cash, and the private sector would continue to focus on offering customer-facing services such as onboarding, KYC, execution of payments etc. The central bank would retain a copy of all retail CBDC holdings and also have both the technical and legal ability to transfer customers from one PSP to another in cases of insolvency or other failures. (Annual Economic Report, BIS, 2020)

- an *intermediated CBDC,* which is a nuanced version of the hybrid model where the central bank would not have any access to the retail ledger, which would be fully retained by the private sector.

Further, CBDCs could either mimic cash by carrying no interest, or carry interest like stocks and bonds. Finally, most research at this point appears to be technology agnostic, in terms of whether the underlying technology is proposed to be blockchain-based or not.

Thus, there is no universal definition or design of CBDCs across jurisdictions as yet. Definitions, or descriptions, of CBDCs differ based on certain core features such as issuing authority, access, technology, or design elements, to either leverage potential innovations (such as interest-bearing CBDCs that can help transmit monetary policy transmission directly) or mitigate potential disruptions (such as indirect or synthetic CBDCs which replicate existing two-tier architecture).

It is clear from the discussions above that the CBDCs are really an institutional design. Moreover, depending on the specifics of the design, they will transform the nature of money, and not surprisingly, will affect the economy in many ways. Obviously, this raises serious concerns among policymakers about the advisability of adopting CBDCs. The next three sections discuss some of the major benefits and challenges associated with adopting CBDCs, that have been discussed in the published academic and policy documents on this issue. For a clearer appreciation of these issues, we look at them from a number of alternative perspectives.

3 Monetary Sovereignty Concerns

In this section, we discuss issues that are important from the point of view of a country's monetary sovereignty. The issues discussed here are those most relevant for the central bank of a country.

3.1 Possible Benefits of CBDCs related to Monetary Sovereignty

3.1.1 CBDCs could improve monetary policy transmission

Unlike bank deposits, cash cannot carry interest. CBDCs however provide the option of ascribing interest rates. Interest-bearing retail CBDCs issued directly to households potentially raises central bank's ability to improve and control monetary policy transmission. Greater visibility of transactions in turn could provide better feedback loops and improve policy decision-making. Interest-bearing CBDCs may also help address the 'zero lower bound' on policy rates (that is, where lowering interest rates does not boost demand and consumption) and enable central banks to charge negative interest rates to spur consumption and growth. Negative interest rates are constrained today due to the presence of cash, as negative rates simply incentivise a shift into cash. However, it is important to note that the same could also transpire if negative interest rates are charged on CBDCs as long as cash is present. Further, even if cash is replaced, the ability to charge negative interest rates is likely to only materialise as long as *CBDCs themselves do not replace cash,* by either not charging or charging more interest. (Mancini-Griffoli *et.al.,* 2018)

3.1.2 CBDCs could improve the efficiency of monetary systems

Central banks can harness CBDCs to better pursue their public policy objectives such as more efficient and safe payment systems, financial inclusion, and so on. (Annual Economic Report, BIS, 2020) Other benefits are seen in terms of fostering innovation and competition, and improving financial integrity by enhancing visibility and tracking of transactions, and reducing illegal activities such as money laundering. (Payments Canada, 2021) Excessive use of cash in an economy is another problem faced by some central banks. This gives rise to costs associated with the issue, storage and distribution of cash, as well as costs associated with losing economic activities to informalisation, where cash dominates. Introduction of CBDCs can reduce these outcomes significantly.

3.1.3 CBDCs could provide a safe alternative to private digital monies

Private alternatives to traditional forms of money, such as cryptocurrencies and stablecoins, have become much more pervasive than before. One of the key reasons for intensifying research into CBDCs has been the proposed launch of Diem by Facebook. (Niepelt, 2019) The advantages offered by stablecoins like Diem (formerly Libra) comes from the efficiencies in costs, speed, and reach (driven by network effects offered by their large presence in social media). However, without the backing of any sovereign agency, these currencies remain vulnerable to risks. Central banks could retain monetary sovereignty against the rise of such private digital currencies by introducing risk-free CBDCs backed by them as legal tender.

3.1.4 CBDCs could mitigate the risks of alternative payment methods

In some countries like China and Sweden, use of alternative payment services offered by private entities (for e.g., mobile payment systems such as Swish, Alipay, and WeChat) have become dominant among the public, with the payment services market concentrated among a few players. China, for example, has seen near-universal adoption of digital payments with nearly 94% of mobile transactions supported by Tencent or Alibaba. Both entities have also combined several other financial services with their social media apps. (Payments Canada, 2021. See also Niepelt, 2020.)

While there are benefits in terms of such players leveraging economies of scale and passing on the cost efficiencies to the consumer, they also pose risks – of monopolies, high entry barriers, potential misuse of data, and safety and security of technology. Depending on their size, these entities may also pose financial stability risks by becoming 'too big to fail'. Another concern is that private payment service providers may not offer interoperable services, leading to fragmentation of markets and increased costs and complexities, ultimately impacting the consumer.

The diminishing use of cash and the rise in private payment systems raises concerns around safety and resilience of payments systems. CBDCs could address these concerns by ensuring continued retail access to central bank money, particularly when access to such private payments systems may suffer, for instance, due to technical failures or bankruptcy of the payment systems provider. China, for instance, has cited 'redundancy' in the event of unavailability or failure of private payments systems as one of the motivations for its digital fiat currency, the eCNY.

Diminishing use of cash also raises concerns around consumer protection viz., payments systems are naturally given to monopolies due to strong network effects, raising concerns around continued quality of service or possible misuse of data. In such a scenario, CBDCs could replace cash as a competitor to these private payments systems.

3.2 Challenges in adopting CBDCs related to Monetary Sovereignty

3.2.1 CBDCs will need central banks to redefine their role

The advantages of introducing CBDCs are clear from the discussions above, but there are challenges as well. Direct access to central bank liabilities for households and businesses may lead to an enlarged role of central banks. In the case of a 'Direct CBDC' model, this would entail a significant change in the role of central banks – they would need to take over the functions hitherto performed by private commercial banks in the entire chain of payment services, including customer support and services, as also tracking illegal activities such as money laundering and data management. Central banks would need to rapidly build newer capabilities in order to do so. (Some of these responsibilities can be shifted to commercial banks etc., with a 'Hybrid/Intermediated/Synthetic CBDC' model.)

4. Concerns of a Sovereign Nation

This section discusses issues that are of greater importance from the perspective of a sovereign nation. These issues are of as much importance to governments as it is to central banks, as the introduction of CBDCs would interact with other policies implemented by the former.

4.1. Possible Benefits of CBDCs for a Sovereign Nation

4.1.1 Efficiency of cross-border payments

Relative to domestic payments, cross-border payments suffer from several market failures viz., of lack of speed, higher costs, and opacity. (Annual Economic Report, BIS, 2020) CBDCs could potentially lower transaction costs for these payments. Digital currencies inherently have the potential to be borderless. According to the BIS, more than fifty countries around the world have started looking into the possibility of introducing their own CBDCs. This gives rise to the possibility of multi-country CBDC networks. Given the considerable costs - in terms of both time and money – that the current international payments system based on SWIFT introduces, it is a matter of time before payments for international trade, investment and even remittances will look to shift to such multi-country CBDC networks.

4.1.2 National CBDC to prevent Digital Dollarization by other country CBDCs

A safe, convenient and scalable digital currency issued by some other country has the potential to result in 'dollarization', particularly if the home country institutions are relatively weaker. (Niepelt, 2020) Interest-bearing CBDCs i.e., hybrid instruments which function both as cash (safe and liquid means of payment) and as financial assets like bonds and securities (in terms of being remunerative) could also have significant international spill-over effects if permitted for use across borders, for example, by foreigners in the home country. This could not only restrict the ability of countries to independently set their domestic monetary policy, but given the data embedded in CBDCs, could also be a data security risk. For any country in such circumstances, having a national CBDC as an alternative to these other currencies is a necessary strategy.

4.2 Challenges for a Sovereign Nation in adopting CBDCs

4.2.1 Disintermediation of the Banking Sector

CBDCs provide a direct channel for central banks to transmit interest rates to households and businesses. To that extent, CBDCs may in fact boost monetary policy transmission. However, if households and businesses find CBDCs more attractive than deposits (for instance, if the CBDCs bear interest and the interest rates are higher), this would result in disintermediation of the banking sector, with the attendant consequence on the availability and cost of funds, which banks depend on to provide credit in the economy. The banking sector may also become relatively less important as a transmission channel.

For the banks, a shift in deposits to CBDCs would require them to debit their own reserves (to credit the CBDC accounts), leading to implications on the quantum of reserves they may have at their disposal to meet their liabilities or regulatory requirements. Banks may need to borrow from the central banks, which could in turn raise questions around the sufficiency of reserves, lending rates offered by the central bank, and its impact on policy rates and availability of good quality collaterals with the banks. It has been suggested that central banks could pass-through the funds gained through CBDC deposits to banks, thereby potentially offsetting any negative impacts including disintermediation. However, this depends on whether central banks choose to do so or invest the funds elsewhere. (Niepelt, 2020)

4.2.2 Accessibility and privacy

From the perspective of individual users and businesses, the principal features of CBDCs that are likely to be relevant are accessibility and privacy. Features such as complexity or sophistication of the technical design at the users' end (relative to cash and alternative payment methods) and levels of technological literacy and ease of use could create a 'digital divide' among populations. Design features of CBDCs would need to take into account various demographics including minors and the elderly, for instance.

Depending on design, alternative payment instruments such as commercial bank deposits and narrow finance may prove to be more competitive from users' perspective, especially in advanced countries, reducing role of CBDCs primarily as a substitution for cash and low value transactions. It may however prove to be more attractive in countries where such alternatives are underdeveloped. (Annual Economic Report, BIS, 2020)

Although falling short of full anonymity offered by cash, CBDCs can be designed to offer anonymity, or pseudonymity, in varying degrees, relative to alternative payment methods. In this context, privacy concerns could arise, especially in some jurisdictions. A recent survey conducted over three months on a 'digital euro' has found that a majority of respondents (albeit with significant differences among countries in the euro area) preferred an offline privacy-oriented solution over an online solution with implications for anonymity and privacy. (Ledger Insights, 2021)

4.2.3 Balancing Financial Integrity and Privacy

If CBDCs are designed to mimic cash, which is fully anonymous, they are likely to replicate concerns around financial integrity by lending themselves to illegal uses such as money laundering, tax evasion or financing illegal activities. They could however be designed so as to require verification of identities/ownership and recording of transactions. This would however raise questions around privacy of users and use of data. Balancing both these considerations is likely to be one of the key design choices for policy makers. Policy responses could include maintaining privacy of data and transactions, even from the central bank, except when required for law enforcement. Nonetheless, questions could arise around liability for failure to comply, or breach of data or privacy.

4.2.4 Legal and regulatory considerations

Having robust legal underpinnings will be essential to the credibility and acceptance of CBDCs, as will Central Bank reputations. Legal frameworks would need to address fundamental aspects, such as central bank authority to issue CBDCs, legal tender status, and the ability to combat money laundering and financing of illicit activities while balancing the same with privacy and data protection.

A recent IMF paper found that only 40 out of the 174 central banks surveyed were legally permitted to issue digital currencies. (Margulis & Rossi, 2021) Legal implications would also depend on design (Ibid), for example, token-based CBDCs may require a far more fundamental overhaul as opposed to account-based CBDCs. This is because digital tokens are a relatively new area, whereas account-based central bank money is already in use at the wholesale level. In addition to central bank and monetary policy laws, CBDCs could also give rise to legal issues in other areas such as tax, property, contracts, insolvency, and payments-related laws. In addition to laws, policy makers and regulators would also need to engage on establishing an appropriate regulatory environment, such as common standards to be followed by private sector in developing robust CBDC-based applications (where the institutional design involves private sector participation).

5. Developing Country Concerns

While the section above discusses concerns relevant to sovereign nations in general, this section discusses issues that are of particular interest to developing countries. As with the last section, these issues are again of great importance to governments as they will have an impact on the overall developmental strategy.

5.1 Possible Benefits of CBDCs to a Developing Country

5.1.1 Possibility of better financial inclusion

This is one of the top motivations among developing countries for researching CBDCs. (Boar & Wehrli, 2021) CBDCs could support financial inclusion by broadening access to money among the under- and un-banked segments of society. The barriers to financial inclusion, such as remoteness of territory, could however have a bearing on CBDCs' ability to do so, and would need to be evaluated.

For instance, CBDCs are unlikely to work where technology access is low. Moreover, there may be better alternatives such as subsidisation of bank branches or promoting alternative payment solutions.

5.1.2 Possibility of a Digital Safety Net

CBDCs may enable direct, timely, and targeted transfers of aid or stimulus packages to the public or firms in times of crisis, such as the ongoing COVID-19 pandemic. Further, with the potential for programmability, they could also create a feedback loop on the use of such funds for better policy decisions. (Bossone & Natarajan, 2020) However, such transfers would depend on robust national digital identity schemes being in place, particularly if the objective is financial aid (as opposed to raising aggregate demand). There may also be concerns around whether such transfers would blur the distinction between monetary and fiscal policies, and diminish the former (Annual Economic Report, BIS, 2020) (as central banks would need to act as the agents of the government in order to accomplish this). Alternatives may also exist, for example, in the form of fast payments.[4]

5.2 Challenges to Developing Countries in adopting CBDCs

5.2.1 Need for adequate digital infrastructure

One of the necessary preconditions for issuance of CBDCs would be a supportive environment in terms of efficient internet connectivity and speed; safe, secure and affordable electronic devices; and technological literacy and ease of use. (Singh & Kant, 2019) This could be a challenge for developing countries where such infrastructure is relatively underdeveloped, but also an opportunity, depending on factors such as access to capital and private sector participation to develop such capabilities.

6. CBDCs from an Indian Perspective

It is clear from the previous discussions that the introduction of a CBDC is an institutional change that will completely redesign the monetary and financial sector in a major way, and has implications for almost all parts of the economy. In this context, it is important to understand that such major institutional changes are gradual and continuous processes, rather than a one-time alteration in policies. Moreover, all successful cases of institutional changes have been based on experimentation using 'transitional institutions' as well as path-dependence. (Rodrik, 2005)

In the Indian context, gradualism and the use of transitional institutions and path dependence implies that rather than considering an abrupt institutional change from the current system to a CBDC-based system, we need to understand what are the current institutional arrangements – particularly in terms of digital payments systems - and whether there are strong arguments to move ahead to CBDCs, given the strengths and weaknesses of the current system.

Traditionally, the Indian monetary and financial systems were mainly bank-based, with money taking the form of cash and bank deposits. Digital transactions were based on money created by banks. This payments infrastructure changed significantly in the last decade or so, with India becoming a pioneer in developing digital payments systems. It was triggered by the setting up of the National Payments Corporation of India (NPCI), a not-for-profit company, promoted by a large number of private and public sector banks, in 2007. The NPCI understood the diverse needs of the economy and came up with a number of products that help in making retail payment for different types of transactions.

The game-changer in this space has been the Universal Payment Interface (UPI), which acts as a real-time payments system that can enable the instantaneous transfer of funds between two banks, using a mobile device. Using this platform, apps like Google Pay, Paytm, and PhonePe have popularized digital payments tremendously. This rapid success in the digital payments space has also encouraged the RBI to move towards a more market-based 'for-profit' addition to the NCPI. Termed the New Umbrella Entity (NUE), this is expected to be a consortium of private companies that will bring more innovation in the payments space.

It is clear that even without the CBDCs, the Indian Central Bank has been actively encouraging the development of the digital payments space. One important feature of this initiative is that it is distinctly pro-market, hoping to grow through the dynamism of the private sector. This vision of the payments space poses a dilemma about the introduction of CBDCs, as -- in countries like China -- CBDCs are expected to provide the State with a mechanism to control the large private sector payments companies. To put it succinctly, the question for India is, if the private players in the payments space and the banking sector can work together to provide an efficient payments system, then why do we need a CBDC here?

Interestingly, two important justifications for an Indian CBDC come from outside our domestic context. First, in most of the major economies in the world, the development of national CBDCs and their interoperability is being seen as a major driver of international trade and payments in the near future. The current system of cross-border payments, based on the SWIFT platform, is increasingly being thought of as costly and time consuming, and even the Bank for International Settlements (BIS) is taking an active interest in pursuing countries to consider the international aspect when they design their CBDCs. While the private sector-based payments system may work well enough within India, it is only a sovereign-backed digital currency that will be trusted in a global system, at least for some time to come.

The other external factor relevant for India is the strong push that is being given by China to establish the digital Yuan, not only as a domestic currency, but also to be used for cross-border payments to their trade and investment partner countries. Once the digital Yuan gains acceptability as a global currency, it is only a matter of time before these will start flowing into the Indian economy. This leads not only to the possibility of a dollarization-type problem in the conventional sense, but also involves grave implications of data vulnerability. Given India's contentious relationship with China, it is in India's interest to limit this possibility.

The best way to deal with this is to establish global protocols on the development of cross-border use of CBDCs. In order to have a say in the development of these international standards as well as collaborations to evolve cross border use cases for CBDCs, it will be very useful for India to have a credible and working CBDC.

An Indian CBDC can also help domestic digitalization. While the current UPI-based digitalization drive has been highly successful, it does not preclude the possibility of a digital divide. The current efforts at financial inclusion have entailed very limited participation by private sector banks, with the bulk of the burden being placed on public sector banks, at considerable loss to the latter. Since the for-profit NUE mechanism is also bank-account-based, it might strengthen the divide. This will make inclusive digitalization of India a challenging project.

Here, CBDCs may provide an alternative to the NUE, by working outside the banking sector, e.g. through the postal system. RBI could directly regulate and pay for the logistics of these accounts, so the banks will not bear the losses on account of these activities. This will also enable our public sector banks to become more profitable. Of course, in order to avoid significant disintermediation of the banking sector, the volume of such activities need to be restricted by design.

While the arguments for an Indian CBDC are compelling, the challenges are not trivial either. As discussed earlier, if CBDCs are considered as better financial assets than bank deposits by savers, then the introduction of CBDCs has the possibility of disintermediation of the banking system (Kar & Priyadarshini, 2022) and the possibility of bank runs. There are, of course, certain design solutions that minimize such risk as long as there is a well-working banking system. In the Indian context, these design choices also need to keep in mind the major structural weaknesses in the Indian banking system, that manifests itself in terms of large volumes of non-performing assets (NPAs) and possibilities of insolvency. While liquidity and solvency are two distinct problems, it is well-known that they reinforce each other. A weak banking sector in India will imply that far more support will be needed by banks in case of systemic disintermediation or the possibility of a bank run due to CBDCs.

Further, while it is intended that a CBDC would provide a safer alternative to private virtual currencies, it is as yet unclear how this will be achieved. Would such private currencies be prohibited? Prohibiting such monies may prove to be difficult to enforce (particularly given their anonymous, decentralised and borderless framework), or even counterproductive. For instance, the IMC India Report, which recommends banning of private cryptocurrencies, also notes that there may be ways to circumvent the prohibitions through use of unauthorised VPNs or leveraging the fragmented regulatory landscape to shift to friendlier jurisdictions. It has also been argued that banning would move the activities underground, making them difficult to monitor, particularly for use in illegal activities. (Nishith Desai Associates, 2018)

Furthermore, while China, the only major economy to prohibit cryptocurrency-related activities like trading and initial coin offerings, has arguably been relatively successful in enforcing them, it is worth noting that such activities have continued to exist, prompting yet another crackdown recently, several years after the initial regulatory actions in 2013 and 2017. (Ma, 2021. See also Wenhao, 2020)

Clearly, any decision to introduce CBDCs in India will have to take into account all of these considerations. In order to remain internationally competitive and to ensure digital and financial security, we may have to adopt and develop CBDCs sooner rather than later. There are, however, genuine concerns over disintermediation and financial instability, and all precautions need to be taken to minimize and control these problems.

7. Next Steps

According to the latest BIS Survey on CBDCs – the fourth in the series – 9 out of 10 central banks around the world are researching CBDCs, with more than half of them involved in concrete experiments. Moreover, the survey reports that as many as 40 CBDCs are expected to be in circulation in the next 6 years. (Kosse & Mattei, 2022) With the budget announcement earlier this year, India too will join the ranks of those who will soon move from research and experimentation to undertaking pilots.

The RBI is expected to introduce a “digital rupee” by FY 2022-23. It may use blockchain or other technologies. The motivations for issuing, as stated in the Honorable Finance Minister’s budget speech, are boosting the digital economy and creating a more efficient and cheaper currency management system. Now that the RBI is on a firm path to introduce a CBDC in the next 12 months, what are the key aspects on which it will need to take a decision?

At the outset, RBI will need to determine the design and architecture of a “digital rupee”, and the technology or infrastructure that will be employed. Design considerations will need to be examined along the following principal dimensions:

- Whether the digital rupee will be issued for wholesale or retail purposes, or if it will be a general purpose CBDC that will encompass both aspects.
- Whether the digital rupee system will follow a direct model, wherein the entire chain of activities from issuance to administration and settlement of transactions will be undertaken by the RBI. Or, whether the existing two-tier architecture of monetary and payments system will be preserved, in order to address the challenges (such as enlarged mandates and capabilities of central banks, and disintermediation of the banking system) associated with the direct model.
- Whether the digital rupee will be token- or account-based, as both are likely to have different technological as well as legal considerations.

The budget announcement states that the digital rupee may be based on “blockchain or other technologies”. Thus, the question on what technology and infrastructure will be employed to issue digital rupees and how will the settlement of transactions be undertaken, remains open. A public permissionless blockchain technology of the type that underlies cryptocurrencies like Bitcoin will fall short on considerations like security, financial integrity, speed, and scale, as well as environmental footprint – considerations that would become critical for a digital public good like CBDCs, especially, if it were sought to be widely adopted. A permissioned blockchain or distributed ledger technology (DLT) may be preferable instead. Most research and experimentation on CBDCs using DLT or Blockchain technology appear to be concentrated in the wholesale segment of interbank settlements or cross-border transactions (with one of the notable exceptions being the Swedish e-krona being piloted for retail purposes).

Another critical aspect that will need to be considered is whether the RBI has the necessary legal power to issue a digital rupee. Few details are available at this stage on these aspects, although a concrete step has been taken with the passage of the Finance Act, 2022 this year, which aims to empower the RBI to issue a digital rupee by proposing to amend the Reserve Bank of India Act, 1934 (RBI Act). The amendments will come into force on a date to be notified subsequently (The Finance Act, 2022). A digital rupee issued by the RBI would constitute legal tender, pursuant to Section 26 of the RBI Act read with the proposed amendments.

The RBI has recently stated that it will in all likelihood begin by examining the wholesale aspects of the digital rupee first (Moneycontrol, 2022). There are also indications that the architecture will most likely be two-tier. On most other aspects, however, including whether the digital rupee will be based on decentralised or centralised technology and infrastructure, the picture remains unclear.

Further, while the above foundational considerations are important, there will also be other important questions that the RBI will need to confront. For instance, as referred to in the previous section, what would be the domestic value proposition for a retail CBDC in India, given the high reliance on cash and the active encouragement to online digital payments in recent years? Lack of sufficient demand and uptake for the digital rupee will not only endanger the achievement of the objectives for which it may have been introduced, but also highlight the lack of justification for using public resources to introduce a CBDC and carry reputational risks for the central bank. The digital rupee for domestic retail use would therefore need to be designed in a "user-centric" manner that will take into account the user requirements, attitudes, preferences, and behaviour. (Priyadarshini, 2021)

Moreover, in designing the digital rupee, relatively quicker success will be achieved if CBDCs are designed to work in tandem with the current and planned future payments infrastructure, rather than substitute them. If the designs work well, CBDCs can be of help in many ways, including the possibility of minimizing the digital divide.

There is a long journey ahead for this institutional reform in India and we must ensure that it contributes to our development process, rather than destabilise it. The RBI expects to take a "calibrated and nuanced" approach towards a digital rupee. This is welcome. Perhaps, a white paper or a discussion paper organising the government and the RBI's thinking on the digital rupee thus far could be useful, to begin with.

References

Adrian, T., Mancini-Griffoli, T. (2019). “The Rise of Digital Money”. *Fintech Notes,* International Monetary Fund.

Banerjee, B. (2020). “Digital Currencies and Cross-Border Policy Cooperation and Coordination”. *G20 Digest.*

Bank for International Settlements. (2020). “Central banks and payments in the digital era”. *BIS Annual Economic Report,* Bank for International Settlements.

Bank of Canada., European Central Bank., Bank of Japan., Sveriges Riksbank., Swiss National Bank., Bank of England., Board of Governors Federal Reserve System., Bank for International Settlements. (2020). “Central Bank Digital Currencies: foundational principles and core features”. *Report No. 1*, Bank for International Settlements.

Bank of England. (2020). “Central Bank Digital Currency: Opportunities, challenges and design”.

Barontini, C., Holden, H. (2019). “Proceeding with caution – a survey on central bank digital currency”. *BIS Papers No. 101.*

Boar, C., Wehrli, A. (2021). “Ready, steady, go? – Results of the third BIS survey on central bank digital currency”. *BIS Papers No. 114.*

Bossone. B., Natarajan, H. (2020). “Getting funds to those in need and enabling access to money during COVID-19, part 3: Central bank digital currencies and other instruments”. *VoxEU.org,* Center for Economic Policy Research.

Committee on Payments and Market Infrastructure., Markets Committee Papers. (2018). “Central Bank Digital Currencies”. Bank for International Settlements.

Committee on Payments and Market Infrastructures. (2016). “Fast payments – Enhancing the speed and availability of retail payments”. Bank for International Settlements

Ferrari, M.M., Mehl, A., Stracca, L. “The international dimension of a central bank digital currency”. *VoxEU.Org,* Center for Economic Policy Research.

Moneycontrol News. “In a position to start testing, running pilot CBDC projects: RBI Deputy Governor” Moneycontrol.com. (April 8, 2022)

Inter-ministerial Committee. (2019). “Report of the Committee to propose specific actions to be taken in relation to Virtual Currencies”. Ministry of Finance, Government of India.

Kar, S., Priyadarshini, D. (2022) "Correct design can ensure CBDCs don't destabilise banks"., Hindustan Times. (February 14, 2022) https://www.hindustantimes.com/opinion/correct-design-can-ensure-cbdcs-don-t-destabilise-banks-101644846670390.html

Kosse, A., Mattei, I. (2022). "Gaining momentum – Results of the 2021 BIS survey on central bank digital currencies". *BIS Papers No. 125.*

Ledger Insights. (2021). "ECB digital euro survey: Privacy is a dealbreaker". Ledger Insights. (April 14, 2021)

Ma, Winston. (2021). "China's cryptocurrency regulations will propel similar regulations globally". International Financial Law Review. (July 28, 2021)

Mancini-Griffoli, T., Martinez Peria, M.S., Agur, I., Ari, A., Kiff, J., Popescu, A., Rochon, C. (2018). "Casting Light on Central Bank Digital Currencies", *IMF Staff Discussion Note,* International Monetary Fund.

Margulis, C., Rossi, A. (2021). "Legally Speaking, is Digital Money Really Money?". *IMF Blog,* International Monetary Fund. (January 14, 2021)

Marsh, Sarah. (2021) "Eastern Caribbean blazes a trail as first currency union to launch central bank digital cash"., Reuters. (April 1, 2021)

Niepelt, D. (2019). "Libra paves the way for central bank digital currency". *VoxEU.org,* Center for Economic Policy Research.

Niepelt, D. (2020). "Digital money and central bank digital currency: An executive summary for policymakers". *VoxEU.org,* Center for Economic Policy Research.

Nishith Desai Associates (2018). "Building a Successful Blockchain Ecosystem for India: Regulatory Approaches to Crypto-Assets". *An independent submission to the Government of India.*

Payments Canada. (2021). "Central Bank Digital Currency (CBDC): Retail CBDC Global Developments". *Central Bank Digital Currencies: The Series, Vol.3*

Press Trust of India. (2021). "RBI internal panel working on model of central bank's digital currency, decision very soon: Deputy Governor B P Kanungo". Economic Times. (February 5, 2021)

Priyadarshini, D. (2021) "User-Centric Design Will Be Key to the Success of a Digital Rupee"., Carnegie Endowment for International Peace India. https://carnegieindia.org/2021/12/09/user-centric-design-will-be-key-to-success-of-digital-rupee-pub-85939

Reserve Bank of India. (2021). "Payment and Settlement Systems in India: Journey in the second decade of the Millennium 2010-20".

Rodrik, D., (2005). "Growth strategies". *Handbook of economic growth*, *1*, pp.967-1014.

Saran, S. (2020). "China's digital currency moves". Business Standard. (May 13, 2020)

Singh, B., Kant, S. (2019). "Crypto Currencies/Blockchain and the Banking System". *The Journal of Indian Institute of Banking and Finance.*

T Rabi Sankar. (2021). "Central Bank Digital Currency – Is This the Future of Money". Reserve Bank of India. (July 22, 2021)

Wenhao, Shen. (2020). "Regulation Of Cryptocurrency in China". Mondaq. (June 12, 2020)

Notes

[1] The authors are grateful to an anonymous referee for very useful comments.
[2] As per the country classification under the *World Economic Outlook*, published by the International Monetary Fund.
[3] It may be noted however that the Bank of England is pursuing research into wholesale CBDCs in a cross-border context separately.
[4] Fast payments have been defined in the context of retail payments as "payments in which the transmission of the payment message and the availability of final funds to the payee occur in real time or near-real time and on as near to a 24-hour and 7-day (24/7) basis as possible". (Committee on Payments and Market Infrastructures, BIS, 2016).

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Will Health Grants to Local Governments by the Fifteenth Finance Commission Eventually Become a Victim of Mission Creep Syndrome?

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Abstract

While the health grants to local governments recommended by Fifteenth Union Finance Commission in the wake of Covid 19 pandemic lays emphasis on the trust-based approach to local governments and decentralization of health, the danger of Mission Creep can undo the potential and effectiveness of the grants to strengthen the primary health care sector. Lack of sensitization towards local governments; the misconception that local governments and its stakeholders are illiterate, weak and corrupt entities; absence of an institutional monitoring mechanism to conduct a follow-up of the recommendations made by the respective Finance Commissions; lack of co-ordination between various Ministries of union and state governments; and the erosion of cooperative federalism can all contribute to health grants falling prey to the vicious cycle of Mission Creep Syndrome.

Keywords: Mission Creep Syndrome, Union Finance Commission, Health Grants, Local Governments, Decentralization and Trust – Based Approach

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Introduction

The Union Finance Commission of India (UFC) is one of the strongest constitutional bodies in India today. The recommendations made by the UFCs[1] are conventionally accepted; a practice that has been adhered to by successive union governments, with a few exceptions. In recent times, the union government, while accepting all the major recommendations of the 15th UFC[2] has rejected its recommendation for 'special grants' worth Rs. 6,764 crore to Karnataka, Telangana and Mizoram for the financial year 2020-21. It has also asked the 15th UFC to reconsider the special nutrition grants worth Rs. 7,735 crore to the states (Shukla, 2020).

Though there have been criticisms regarding the decline of UFC as a constitutional institution (Thimmaiah, 2002), over the years, its credibility has strengthened as its recommendations, including those of the 15th UFC, fulfil the three criteria of "need, equity and efficiency" (Times of India, 2021). Owing to the rising fiscal needs and macroeconomic uncertainties resulting from the pandemic induced challenges, "the 15th UFC has emphasized on fiscal stability, equity, and enhancement of fiscal space through higher borrowing, with a fiscal exit plan for both union and states," (Chakraborty, 2021).

In India, the UFC and the Planning Commission were formed to promote fiscal federalism. While the Planning Commission of India, an extra-constitutional body established in 1950, was later dismantled in 2014, the UFC which was established in 1951 still exists. The UFC has turned out to be a unique constitutional body that has survived for the last 70 years. The major reason behind its success lies in the fact that each UFC comprised of competent experts. It is to be noted that the success of any official expert body like the Finance Commission depends upon the calibre and efficiency of the members and Chairperson.

The appointments and recommendations made by the UFCs over the years have been greeted with positive discussions in academic and policy-making bodies in the country. It is also interesting to note that each UFC in India had to face its own unique sets of challenges; for the 15th UFC, the COVID-19 pandemic was the biggest challenge of all. It is to be noted that "the COVID-19-induced macroeconomic uncertainties made the assessment and quantification of fiscal needs a challenging task for the Fifteenth Finance Commission" (Chakraborty, 2021). Despite the challenges posed by the pandemic, the 15th UFC have taken an excellent and careful approach to dealing with the "challenging task of dividing fiscal resources between the union and states" (Rao, 2021).

The paper is divided into eight parts. Part one discusses the concept of health grants, and part two discusses grants to local governments in the context of health grants. Part three of the paper focuses on health grants to local governments in detail, followed by part four which discusses the logic and necessity for introducing health grants, and assesses the status of grassroots healthcare institutions. This is followed by a separate section on other recommendations made by the 15th UFC in connection with health grants. Parts six and seven discuss *Mission Creep Syndrome* and reasons for the same, respectively. The paper ends with discussion and conclusions.

Part I - The Concept of Health Grants

The recommendations made by the UFCs of India over the years have played a pivotal role in strengthening fiscal federalism in India. It is also the first constitutionally-backed Commission to submit its detailed report, titled *Finance Commission in COVID Times,* in the midst of the pandemic. Like all other UFCs in the past, the 15th UFC also recommended grants-in-aid under revenue deficit grants, grants for local governments[3], grants for disaster management, sector-specific grants, and state-specific grants; in the wake of the COVID-19 pandemic, however, the 15th UFC has also introduced a new category called 'health grants for local governments' (See Table 1).

The total grants-in-aid support to the health sector over the award period[4] amounts to Rs. 1,06,606 crores, which is 10.3% of the total grants-in-aid recommended by the 15th UFC. This constitutes about 0.1% of GDP (Para 9.49, 15th UFC). The 15th UFC has stated that grants for the health sector will be unconditional. It is also interesting to note that the total grant-in-aid support to the health sector is more than Rs.1 lakh crore, spread over three components, making it the second-most important grant after revenue deficit grants[5].

Table 1: Break-up of Total Grants-in-aid Support to the Health Sector

Components	Amount
1.Sectoral Grants under health*	Rs. 31,755 crores
2.Health Grants for local governments**	Rs.70,051 crores
3.State-specific grants for health	Rs. 4,800 crores
Total grants-in-aid support to the health sector	Rs. 106,606 crores

*See Table 2 for Break-up of sectoral grants under health

** See Table 4 for Break-up of health grants for local governments

Source: Report of the 15th UFC

Before delving into the health grants for local governments, it is important to look into health sector grants earmarked by the 15th UFC in the wake of COVID-19 pandemic (See Table 2). The 15th UFC has also recommended state-specific grants for health amounting to Rs. 4,800 crores. These grants have been earmarked to build resilience against future pandemics, by building critical care hospitals and public health labs.

Table 2: Break-up of Sectoral Grants for Health

Sub-components	Amount
1.Critical care hospitals	Rs. 15,265 crores
2.District integrated public health labs	Rs. 469 crores
3.Support to the States to run DNB courses in district hospitals	Rs. 2725 crores
4.Training of 1.5 million workforce related to Allied health care	Rs. 13296 crores
Total	Rs. 31,755 crores

Source: Report of the 15th UFC

Under the sectoral grants for health, the 15th UFC has recommended a total of Rs. 15,265 crores for critical care hospitals. It includes Rs. 13,367 crores for general states, and Rs 1,898 crore for North-

Eastern and Himalayan (NEH) states. A total of Rs. 13,296 crores has been earmarked for training of the allied healthcare workforce. Out of this amount, Rs. 1,986 crores is allocated for NEH states and Rs. 11,310 crores for general states (para 9.60, 15th UFC).

Part II - Grants for Local Governments

The 15th UFC, in their report for 2020-21 had recommended total grants of Rs. 90,000 crores to local governments, in the ratio of 67.5:32.5 between rural and urban local governments. For the five-year period of 2021-26, the 15th UFC has recommended a total grant of Rs. 4,36,361 crores. The ratio of *inter se* distribution of the grants recommended for rural and urban local bodies gradually moves from 67.5:32.5 in 2020-21 to 65:35 in 2025-26 (15th UFC Report for 2021-26).

Of these total grants, Rs. 8,000 crores are performance-based grants for incubation of new cities, and Rs. 450 crores are for shared municipal services. A sum of Rs. 2,36,805 crores is earmarked for rural local governments, Rs. 1,21,055 crores for urban local governments, and Rs. 70,051 crores for health grants through local governments (See Table 3).

Table 3: Break -up of Total Grants Allocated to Local Governments

Components	Amount
1.Grants earmarked for rural local governments	Rs. 2,36,805 crores
2.Grants earmarked for urban local governments	Rs. 1,21,055 crores
3.Health Grants through local governments	Rs. 70,051 crores
4.Performance-based grants for incubation of new cities	Rs. 8,000 crores
5.Shared municipal services	Rs. 450 crores
Total Grants for Local Governments (2021-26)	Rs.4,36, 361 crores

Source: Compiled by the authors based on the data given in Report of the 15th UFC

Part III - Health Grants for Local Governments in Pandemic Times

In the wake of the COVID-19 outbreak, with worrying reports of the underfunded and understaffed health system in the country crumbling under the burden, the 15th UFC provided grants of Rs. 70,051 crores to strengthen the health care system at the grassroots level.

The grants for local governments have been earmarked for the health sector at the rural and urban government levels over the award period of five years (Table 4). The health grants recommended to be released in the financial year 2021-22 amount to Rs. 13,192 crores, which includes Rs. 8,273 crores for rural and Rs. 4,919 crores for urban local governments. The recommendations made by the 15th UFC reflect a scientific and thoughtful approach, rooted in the ground reality that primary healthcare infrastructure at the grassroots level crumbled in the wake of COVID-19, owing to poor facilities and shortage of funds.

It also points to the greater stress given to cooperative federalism. The 15th UFC, by incorporating the health grants to local government, shows its conviction about and acceptance of the important role played by the local governments in primary healthcare. It also shows a 'trust-based approach' towards local governments and their efficiency in effectively handling the grants for strengthening grassroots healthcare infrastructure.

Table 4: Sector-wise Break-up of Health Grants by 15th UFC (Rs. Crores)

Total Health Grants	2021-22	2022-23	2023-24	2024-25	2025-26	Total
1.Support for diagnostic infrastructure to the primary healthcare facilities*	3478**	3478	3653	3835	4028	18472
Sub Centres (SCs)	1457	1457	1530	1607	1687	7738
Primary Health Centres (PHCs)	1627	1627	1708	1793	1884	8639
Urban PHCs	394	394	415	435	457	2095
2. Block Level Public Health Units (BHUs)	994	994	1044	1096	1151	5279
3. Urban Health and Wellness Centres (HWCs)	4525	4525	4751	4989	5238	24028
4. Building-less SCs, PHCs, CHCs	1350	1350	1417	1488	1562	7167
5. Conversion of Rural PHCs into HWCs	2845	2845	2986	3136	3293	15105
Total Health Grants (Rs. in Crore)	13192	13192	13851	14544	15272	70051

*Under the component "support for diagnostic infrastructure to the primary healthcare facilities", there are three sub components and they are SCs, PHCs and Urban PHCs.

** Please note that the Rs. 3478 is the sum total of (SCs -1457, PHCs -1627, Urban PHCs -394)

Source: Report of the 15th UFC

Through the allocation of the health grants to local governments, the 15th UFC has pioneered the process of ensuring the 'authority and accountability' in the domain of the devolution of health to local governments. The involvement of empowered local governments would also make health systems more accountable to the people. The decentralization of health will create a sense of responsibility (accountability) and a sense of ownership (authority), which will eventually lead to sustainability and longevity of public health institutions.

Part IV - Why the Health Grants?

In its report for 2021-2026, the 15th UFC has pointed out the reality that the COVID-19 pandemic has dismantled the healthcare infrastructure in the rural and urban healthcare facilities especially primary healthcare systems. According to 15th UFC, India has failed to ensure core public health functions and accountability in health service delivery. The 15th UFC has also listed the critical gaps in health infrastructure, such as inadequate numbers of Sub Centres (SCs), Primary Health Centres (PHCs), Community Health Centres (CHCs), doctors, nurses, and paramedics.

Prior to introducing the health grants, the 15th UFC has initiated intensive consultations and discussions on challenges in healthcare infrastructure at the grassroots level and even constituted a High-Level Group on Health Sector. Meanwhile, one of the major reasons for recommending the health grants was the reality that many of the primary healthcare institutions are understaffed and underfunded, and need to be financially empowered.

The 15th UFC has recommended 'health grants' for five major areas:

Support for diagnostic infrastructure for the primary healthcare facilities:

1. (a) SCs

(b) PHCs

(c) Urban PHCs

2. Block Level – PHUs

3. Urban HWCs

4.Building-less SCs, PHCs, and CHCs

5. Conversion of Rural PHCs into HWCs.

To understand the importance of health grants, it is essential to understand the status of grassroot healthcare institutions.

Support for diagnostic infrastructure for the primary healthcare facilities: Diagnostic services are critical for the delivery of health services, and the health grants are intended to fully equip the primary healthcare facilities so that they can provide some necessary diagnostic services. According to Rural Health Statistics (RHS 2019 -2020), there is no adequate modern diagnostic services available in Primary Healthcare facilities.

Status of Rural and Urban Sub-Centres (SCs), Primary Health Centres (PHCs), and Community Health Centres (CHCs)

A three-tier system comprising of SCs, PHCs, and CHCs are the main pillars of the Primary Healthcare System in India (See Table 5). According to RHS 2019-2020, there are a total of 1, 55, 422 SCs in rural areas and 2,517 SCs in urban areas. In the case of PHCs, there are 24,918 in rural areas and 5,895 in urban areas (also known as urban PHCs). There are 5,183 CHCs in rural areas and 466 in urban areas.

Table 5: Details of SCs, PHCs, and CHCs in Rural and Urban Areas in India

States/UTs	SCs		PHCs		CHCs	
	Rural SCs	Urban SCs	Rural PHCs	Urban PHCs	Rural CHCs	Urban PHCs
Andhra Pradesh	7437	21	1142	243	141	57
Arunachal Pradesh	356	7	119	5	60	0
Assam	4659	21	946	56	190	2
Bihar	9112	1168	1702	325	57	7
Chhattisgarh	5205	364	792	45	170	4
Goa	218	0	55	4	6	0
Gujarat	9162	0	1477	318	348	14
Haryana	2617	0	385	100	118	13
Himachal Pradesh	2092	12	564	24	85	7
Jharkhand	3848	0	291	60	171	6
Karnataka	9188	247	2176	358	189	19
Kerala	5410	0	784	148	211	16
Madhya Pradesh	10226	0	1199	277	309	21
Maharashtra	10647	2	1829	846	278	140
Manipur	418	0	85	8	17	0
Meghalaya	440	3	119	24	28	0
Mizoram	311	59	57	8	9	0
Nagaland	395	20	130	7	21	0
Odisha	6688	0	1288	89	377	7
Punjab	2950	97	427	100	143	12
Rajasthan	13480	50	2094	383	548	66
Sikkim	147	6	24	1	2	0
Tamil Nadu	8713	0	1420	464	385	15
Telangana	4744	97	636	249	85	10
Tripura	965	36	107	5	22	0
Uttarakhand	1839	8	257	38	56	12
Uttar Pradesh	20778	0	2880	593	711	12
West Bengal	10375	0	913	456	348	0
Union Territories						
Andaman & Nicobar Islands	124	0	22	5	4	0
Chandigarh	0	0	0	48	0	2
Dadra and Nagar Haveli and Daman and Diu	94	3	10	3	4	0
Delhi	12	246	5	541	0	23
Jammu and Kashmir	2470	22	923	49	77	0
Ladakh	238	0	32	0	7	0
Lakshadweep	11	0	4	0	3	0
Puducherry	53	28	24	15	3	1
All India Total	1,55,422	2517	24918	5895	5183	466

Source: RHS 2019 -2020. Data as on March 31, 2020

Block Level Public Health Units

A CHC/ PHC/ Sub-divisional or Sub-district Hospital, are the major public health units functioning at the block level. The public health system at the block level across states in India does not have a uniform pattern. For instance, in some states, a CHC at the block level serve as First Referral Unit (FRU). At present, the public healthcare system at the block level is not well equipped to handle public health emergencies.

Following the outbreak of COVID-19 pandemic, the Government of India has proposed Block Level - PHUs in around 3,382 blocks in 'High-Focus States', including Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh, and Uttarakhand, and in three North-Eastern States, namely Assam, Manipur, and Meghalaya (National Health Systems Resource Centre, 2021). The support for establishing 1,048 Block Level - PHUs in these states are covered under the PM Ayushman Bharat Health Infrastructure Mission, from the resources from the 15th UFC health grants to local governments.

Urban Health and Wellness Centres

In 2018, the union government announced Ayushman Bharat Program with two major components: (1) HWCs for delivering comprehensive primary health care services, and (2) Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB- PMJAY), provides health assurance up to Rs. 5 lakh per family per year for secondary and tertiary healthcare hospitalizations (Press Information Bureau, 2021). The beneficiaries eligible for AB-PMJAY are selected on the basis of deprivation and occupational criteria listed under the 2011 Socio Economic Caste Census.

The HWC component of the Ayushman Bharat Program aims to upgrade around 150,000 primary healthcare facilities into functional HWCs. It has also been suggested that all urbanPHCs to be upgraded as Urban HWCs by March 2020. This process is ongoing. In the wake of COVID-19 pandemic, the importance of Urban HWCs has increased. Be it a pandemic or endemic disease, Urban HWCs if properly operational can facilitate decentralized delivery of primary health care, covering a relatively smaller population per HWC. It could create a monitoring mechanism, as well as channel to disseminate information on public health issues to the community around them.

Building-less SCs, PHCs, CHCs

According to RHS 2019-2020, there are around 47,518 SCs in rural areas that need buildings to function. (See Table 6). The SCs are one of the most peripheral points of contact between Primary Healthcare Systems and the local community. However, SCs are often in a poor condition; out of the total existing 1,55,404 SCs, only 1,07,886 are housed in government buildings. Those SCs, PHCs, and CHCs that are functioning in rented or rent-free buildings are considered as 'building-less', and they have to be shifted to government buildings. For these building-less SCs, PHCs, and CHCs, the 15th UFC has granted a total of Rs. 7,167 crore.

Table 6: Details of SCs functioning in Government Buildings, Rented Buildings, and Rent-Free Buildings in Rural Areas of India

States/UTs	Total No. of SCs	No. of SCs functioning in Government Buildings	No. of SCs functioning in Rented Buildings	No. of SCs functioning in Rent Free Buildings	No. of SCs to be housed in Government Buildings
Andhra Pradesh	7437	2326	4811	300	5111
Arunachal Pradesh	356	356	0	0	0
Assam	4659	3626	695	338	1033
Bihar	9112	3756	3250	2106	5356
Chhattisgarh	5205	4160	573	472	1045
Goa	218	93	122	3	125
Gujarat	9162	6358	147	2657	2804
Haryana	2617	1714	362	541	903
Himachal Pradesh	2092	1630	25	437	462
Jharkhand	3848	2422	1219	207	1426
Karnataka	9188	5075	1481	2632	4113
Kerala	5410	3818	586	1006	1592
Madhya Pradesh	10226	7926	1223	1077	2300
Maharashtra	10647	9069	1417	161	1578
Manipur	418	332	19	67	86
Meghalaya	440	428	2	10	12
Mizoram	311	311	0	0	0
Nagaland	395	313	3	79	82
Odisha	6688	4897	1624	167	1791
Punjab	2950	1848	29	1073	1102
Rajasthan	13480	10621	1205	1655	2859
Sikkim	147	146	1	0	1
Tamil Nadu	8713	6290	2420	3	2423
Telangana	4744	1273	2694	777	3471
Tripura	965	777	38	150	188
Uttarakhand	1839	1296	506	37	543
Uttar Pradesh	20778	17124	3642	12	3654
West Bengal	10357	8580	1332	445	1777
Union Territories					
Andaman & Nicobar Islands	124	124	0	0	0
Chandigarh	0	NA	NA	NA	NA
Dadra and Nagar Haveli and Daman and Diu	94	69	15	10	25
Delhi	12	1	8	3	11
Jammu and Kashmir	2470	872	1598	0	1598
Ladakh	238	207	31	0	31
Lakshadweep	11	8	0	3	3
Puducherry	53	40	13	0	13
All India Total	**155404**	**107886**	**31090**	**16428**	**47518**

Source: RHS 2019-2020. Data as on March 31, 2020

States like Andhra Pradesh, Gujarat, Karnataka, Bihar, Jharkhand, Odisha, Punjab, Rajasthan, Telangana, Uttar Pradesh, West Bengal, Assam, Manipur, and Meghalaya have significantly higher infrastructure gaps, as they have higher number of SCs to be moved to government buildings.

Building-less PHCs

The PHCs are often the first point of contact for the people living in rural and remote communities. The poorest of the poor often find PHCs as their first and last resort. However, majority of the PHCs do not have adequate infrastructure facilities to even provide treatment to the ailing (See Table 7). States like Bihar, Chhattisgarh, Jharkhand, Maharashtra, Madhya Pradesh, Uttar Pradesh, Karnataka, Gujarat, and Rajasthan have a higher number of PHCs are not housed in government buildings, i.e. 'building-less PHCs'.

Building -less CHCs

CHCs are the third tier of rural healthcare institutions. The CHCs serve as referral centres to primary healthcare institutions or PHCs, to make modern healthcare services accessible to rural people, and to ease the overcrowding in district hospitals. As on March 31, 2020, there are 5,183 CHCs functioning in rural areas of the country; of these, 4997 CHCs are functioning in government buildings, and a total of 186 CHCs have to be moved to government buildings (See Table 8).

Conversion of Rural PHCs and SCs into HWCs

The union government has envisaged the creation of 1,50,000 HWCs, by transforming existing SCs and PHCs, as the basic pillar of Ayushman Bharat to deliver comprehensive primary healthcare. The 15th UFC has proposed to provide support for necessary infrastructure for the conversion of rural PHCs and SCs into HWCs, so that they are equipped and staffed by an appropriately trained primary healthcare team (Report of the 15th UFC, 2021-26).

Table 7: Details of PHCs functioning in Government Buildings, Rented Buildings, and Rent-Free Buildings in Rural Areas of India

State/UTs	Total No. of PHCs	No. of PHCs functioning in Government Buildings	No. of PHCs functioning in Rented Buildings	No. of PHCs functioning in Rent-free Building	No. of PHCs to be housed in Government Buildings
Andhra Pradesh	1142	1126	1	15	15
Arunachal Pradesh	119	119	0	0	0
Assam	946	946	0	0	0
Bihar	1702	986	362	354	716
Chhattisgarh	792	677	0	115	115
Goa	55	22	3	30	33
Gujarat	1477	1226	3	248	251
Haryana	385	301	14	70	84
Himachal Pradesh	564	485	6	73	79
Jharkhand	291	160	17	114	131
Karnataka	2176	2020	69	87	156
Kerala	784	775	7	2	9
Madhya Pradesh	1199	1092	107	0	107
Maharashtra	1829	1707	122	0	122
Manipur	85	79	2	4	6
Meghalaya	119	118	1	0	1
Mizoram	57	57	0	0	0
Nagaland	130	123	0	7	7
Odisha	1288	1255	0	33	33
Punjab	427	362	5	60	65
Rajasthan	2094	1963	21	110	131
Sikkim	24	24	0	0	0
Tamil Nadu	1420	1390	0	30	30
Telangana	636	636	0	0	0
Tripura	107	107	0	0	0
Uttarakhand	257	227	18	12	30
Uttar Pradesh	2880	2626	218	36	254
West Bengal	913	913	0	0	0
Union Territories					
Andaman & Nicobar Islands	22	22	0	0	0
Chandigarh	0	NA	NA	NA	NA
Dadra and Nagar Haveli & Daman and Diu	10	10	0	0	0
Delhi	5	5	0	0	0
Jammu and Kashmir	923	714	209	0	209
Ladakh	32	32	0	0	0
Lakshadweep	4	4	0	0	0
Puducherry	24	24	0	0	0
All India Total	**24918**	**22333**	**1185**	**1400**	**2585**

Source: RHS 2019-2020. Data as on March 31, 2020

Table 8: Details of CHCs functioning in Government Buildings, Rented Buildings, and Rent-Free Buildings in Rural Areas of India

States/UTs	Total CHCs in Rural Areas	No. of CHCs functioning in Government Buildings	No. of CHCs functioning in Rented Buildings	No. of CHCs functioning in Rent Free Buildings	No. of CHCs to be housed in Government Buildings
Andhra Pradesh	141	141	0	0	0
Arunachal Pradesh	60	60	0	0	0
Assam	190	190	0	0	0
Bihar	57	57	0	0	0
Chhattisgarh	170	160	0	10	10
Goa	6	6	0	0	0
Gujarat	348	298	0	50	50
Haryana	118	113	2	3	5
Himachal Pradesh	85	83	1	1	2
Jharkhand	171	171	0	0	0
Karnataka	189	181	8	0	8
Kerala	211	211	0	0	0
Madhya Pradesh	309	304	5	0	5
Maharashtra	278	270	2	6	8
Manipur	17	17	0	0	0
Meghalaya	28	28	0	0	0
Mizoram	9	9	0	0	0
Nagaland	21	21	0	0	0
Odisha	377	377	0	0	0
Punjab	143	132	0	4	11
Rajasthan	548	530	2	16	18
Sikkim	2	2	0	0	0
Tamil Nadu	385	385	0	0	0
Telangana	85	85	0	0	0
Tripura	22	22	0	0	0
Uttarakhand	56	56	0	0	0
Uttar Pradesh	711	642	47	22	69
West Bengal	348	348	0	0	0
Union Territories					
Andaman & Nicobar Islands	4	4	0	0	0
Chandigarh	NA	NA	NA	NA	NA
DNHDD*	4	4	0	0	0
Delhi	NA	NA	NA	NA	NA
Jammu and Kashmir	77	77	0	0	0
Ladakh	7	7	0	0	0
Lakshadweep	3	3	0	0	0
Puducherry	3	3	0	0	0
All India Total	**5183**	**4997**	**67**	**112**	**186**

Source: RHS 2019-2020. Data as on March 31, 2020. DNHDD – Dadra and Nagar Haveli and Daman and Diu

Part V - Other Health Related Recommendations by 15th UFC

The 15th UFC recommendations are not limited to health grants. The Commission recommends measures should be taken to assign a larger role for nursing professionals, and the concept of nurse practitioner, physician assistant, and nurse anaesthetist should be introduced for better utilisation of nursing professionals.

It also said that the Medical Council of India (MCI) or National Medical Council (NMC) should develop small courses on wellness clinic, basic surgical procedures, anaesthesia, obstetrics and gynaecology, eye, ENT etc. for MBBS doctors, and encourage AYUSH as an elective subject for medicine undergraduates (Report of the 15th UFC, 2021-26). The 15th UFC also recommended that an All India Medical and Health Service under Section 2A of the All-India Services Act, 1951 must be constituted, to alleviate the inter-state disparity in the availability of medical doctors.

a) Nurse Practitioners

India needs an alternative general medical practitioner to overcome the severe shortage of doctors and nurses in rural as well as urban areas. At present, the rural and underprivileged regions in the country are in need of general medical practitioners (Kodi & Sharma, 2021).

A nurse practitioner is a registered nurse with advanced training and education; like a general physician, they can help with all aspects of patient care including consultation, diagnosis, and treatment. However, unlike physicians, the nurse practitioners cannot perform surgical procedures independently.

As per Indian Public Health Standards, PHCs require 25,650 doctors across India, to tend to a minimum of 40 patients per doctor per day for outpatient care, and here the services of nurse practitioners can prove helpful to an extent. Since 2007, there have been attempts to introduce the nurse practitioner courses; so far, however, nothing has materialized. The National Health Policy in 2017 and 2019 have also put forward the importance of nurse practitioners, especially for healthcare delivery at the grassroots level.

While it took a pandemic for India have to understand the significance of nurse practitioners, countries like USA and Canada had the nurse practitioner system since the 1960s, and UK since the 1980s (Maier et. al, 2016). Following the 15th UFC recommendations, the Ministry of Health and Family Welfare (MoHFW) has also emphasized the need of nurse practitioners for effective healthcare delivery at the primary healthcare institutions, and is actively considering introducing a cadre of nurse practitioners to address the shortage of doctors in rural areas.

b) All India Medical and Health Services

It is a worrying reality that primary healthcare institutions don't have enough health workforce. Though the number of health facilities in rural India have considerably increased, convincing medical graduates to work in rural areas is a challenge in itself. The lack of good living standards, including inaccessibility of basic amenities, are the major factors that often prevent them from offering their service in rural areas.

The 15th UFC has proposed that an All India Medical and Health Services Cadre should be organised along the lines of the Indian Administrative Service (IAS): "Given the inter-state disparity in the availability of medical doctors, it is essential to constitute an All India Medical and Health

Service as is envisaged under Section 2A of the All-India Services Act, 1951. For this purpose, the Union Public Service Commission (UPSC) would need to do annual recruitments, based on the state-wise requisitions by each state government.", (Report of the 15th UFC).

The MoHFW and state governments have attempted various strategies to attract doctors to rural areas, including compulsory rural postings and linking rural postings to admission into postgraduate courses. However, results have not been promising, as these initiatives found only a few takers.

While the shortage of health workers is a worrying trend, the absence of decision-makers with background and expertise in health is also worrisome. While there have been talks about All India Medical Services on the lines of IAS, there has been little or no discussions on All India Medical and Health Services before the current recommendations. The All India Medical Services, if put into practice, will also be responsible for holding the administrative responsibilities pertaining to the district medical officer, project officers of various disease control programmes, and the various ranks of secretaries in the Union health ministry, the state health departments, and the heads of all other areas in the health sector.

All India Medical and Health Service would help in recruiting doctors and health workers to grassroot areas. The COVID-19 pandemic has reinforced the importance of All India Medical and Health Service cadre (Nankani, 2022). The development of such a service for public health administration was also advocated by a parliamentary committee on health in March 2021 (Belagere, 2022). In addition to that, the Indian Medical Association (IMA) has also demanded the establishment of the All India Medical Services.

Such a medical cadre will have the potential to close the long-standing gap between public health information and decision-making. The pandemic has made us realize the importance of health professionals, not just in responding to the pandemic in health institutions, but also at the various level of the government. Perhaps a mix of All India Medical Service and All India Medical and Health Services would be the right fit, and it should be part and parcel of the post-COVID healthcare policy in India.

c) Increase the Spending on Health

The 15th UFC, has strongly recommended that health spending by states should be increased to more than 8% of their Budget by 20226. Further, it also recommended that primary healthcare should be the number one fundamental commitment of each and every state, and that primary health expenditure should be increased to two-thirds of the total health expenditure by 2022. It has also recommended that the public health expenditure of the union and states together should be increased in a progressive manner to reach 2.5% of GDP by 2025 (NITI Aayog 2020 -21, Working Paper).

Part VI - The Problem of Mission Creep

Funds and grants allocated by the UFCs are transferred in two stages. In the first stage, the funds are transferred from the union government to state governments and from the states to local governments. These fund transfers were earlier governed by stipulations and conditions imposed by the union government, which may not be based strictly or solely on the recommendations of the UFC. However, the 14th UFC (in Para 9.80) made it clear that "...there is a need to trust and have respect for local bodies as institutions of local self-government, and that no more conditions may be imposed by either the union or the state government, which go beyond those made by the 14th FC".

The 14th UFC was thus the first Finance Commission to openly declare "trust-based approach to local governments", emphasizing that all local governments are required to utilize almost all the grants on the functions assigned to them. The 14th UFC also clarified that "no further conditions should be imposed by either the Union or the States in this regard". However, these recommendations were not followed in letter and spirit by both union governments (Ministry of Finance - MoF - and Ministry of Panchayati Raj - MoPR) and state governments, and this has led to "*Mission Creep*"[7].

For instance, the introduction of Gram Panchayat Development Plan (GPDP) as a necessary condition for the receipt of 14th UFC funds have undermined the recommendations of the Commission. "There has been 'Mission Creep' by the MoF and MoPR through the imposition of more conditionalities upon Panchayats and States, over and above those suggested by the FC" (Centre for Policy Research, 2019)

It is also surprising to note that the states like Kerala, Tamil Nadu, and Karnataka, which have a legacy of decentralization, also took multiple steps that violate the letter and spirit of the recommendations of the 14th UFC. For instance, Kerala[8] has merged the Plan Funds allocated to local governments by the state government and funds earmarked by the 14th UFC (under the name Development Funds). Therefore, the 14th UFC grants were subjected to rigid conditionalities imposed by the Government of Kerala. As a result, these funds were transferred to the treasury accounts of the Gram Panchayats in Kerala instead of depositing it in the bank accounts of each Panchayat. It resulted in an inordinate delay in the release of funds, and the Panchayats lost the grants and interest rate which would have been accumulated on it. This is an explicit violation of the recommendations laid out by the Union Finance Commission.

In Tamil Nadu[9], in the case of settlement of electricity and water charges, as per the guidelines prepared by the Government of Tamil Nadu for administering 14th UFC (Basic & Performance Grants), "Village Panchayats should settle their dues towards electricity consumption charge to Tamil Nadu Generation and Distribution Corporation (TANGEDCO) and water charge to Tamil Nadu Water Supply and Drainage Board (TWAD) as 1st charge from 14th UFC". It is a fact that streetlights and water supply are basic civic functions of every local government, as is also mentioned in Section 110 of the Tamil Nadu Panchayats Act, 1994. However, directions for settlement of electricity and water charges to service providers as the first priority item from the 14th UFC is against the spirit of decentralization & recommendations of the FC. This is considered as a 'Mission Creep'.

Attempts were also made to 'divert' some award amount from the 14th UFC while depositing the same in a 'protected envelope' (Account No. 2) to operative exclusively for the payment towards TWAD and TANGEDCO. Since the Village Panchayats have little freedom on the operation of this Account No.2, it is against the letter and spirit of the 14th UFC to deposit a share of the UFC awards in the said Account. Similarly, Karnataka[10] introduced the 'Escrow Account System' to divert the grants from 14th UFC to Gram Panchayats.

Will the Health Grants lead to Mission Creep?

Though the 15th UFC has clearly stated that that "no conditions or directions other than those indicated by the Finance Commission should be imposed either by the union or the state governments, or any authority, for releasing the grants for health". However, it needs to be seen whether the recommendations made by the 15th UFC will be implemented as intended. So far, no major empirical studies or assessments have been made to monitor and review whether the funds allocated to local governments by the UFCs are reaching them without fail. There should be an independent mechanism to check the 'Mission Creep Syndrome'.

Part VII - Reasons for 'Mission Creep'

1. Trust Deficit: There is a lack of sensitization towards local governments on the part of public institutions and various government departments at the Union and State level. There are lot of misconceptions about local governments and functionaries. The general perception is that the elected functionaries and staff at local governments are weak, corrupt, and illiterate, and that transferring huge funds directly into their hands would be catastrophic. It is also important to keep in mind, as M Govinda Rao points out, that "...while the intention of the Commission [is] to further the process of fiscal decentralisation to the sub-state level by placing eligibility conditions to the states for the local bodies to receive grants, the problem is that the states may not have the incentive to undertake the suggested reforms, as they are not going to be the losers, and the public pressure may not be strong enough to force them to undertake them." (Rao, 2021) The importance of induced pressure from below is very much a catalyst in empowering the grassroot institutions.

2. No Institutional Mechanism: At present there is no institutional mechanism to monitor and review the implementations and fund allocations based on the recommendations of the UFCs and the resultant institutional vacuum. Once a union or state Finance Commission submits their report and recommendations, that Finance Commission ceases to exist. This has created an institutional vacuum of great lengths. Meanwhile, the 15th UFC in its recommendations for fiscal architecture for the 21st century has suggested the creation of a new Independent Fiscal Council. According to the 15th UFC, "the Independent Fiscal Council will be an advisory body with powers to access records required from union as well as states to ensure better compliance to act as a repository of fiscal data," (Para 13.56, 15th UFC). In addition to that, the 13th UFC has recommended the appointment of a committee by the Ministry of Finance to monitor the implementation of fiscal rules and later to evolve as a fiscal council (Rao, 2021). Fiscal Responsibility and Budget Management (FRBM) review committee also mooted for the same. Meanwhile, there are valid criticisms about how a council appointed by the Finance Ministry and reporting to the same Ministry can remain independent (Rao, 2021). As a result, the 14th UFC recommended the FRBM Act should be amended so that the Parliament can appoint an Independent Fiscal Council. However, the government has not taken any action in this regard.

3. Lack of Coordination: There is a lack of co-ordination between the Ministries of Finance, Health and Family Welfare, Panchayati Raj, Housing and Urban Affairs, and Rural Development, when it comes to proper allocation of earmarked funds or implementation of the recommendations of the Finance Commissions. There is little or no coordination at the horizontal level between these Union Ministries, and the same co-ordination deficit is visible in respective state departments too. This lack of uniformity has led to an institutional vacuum when it comes to the monitoring and implementation of 15th UFC recommendations. Even the NITI Aayog, despite preparing four rounds of National Health Index, has a sceptical attitude towards local governments in general.

4. Absence of Healthy Cooperative and Competitive Federalism: Though the Finance Commission aims to promote fiscal federalism between Union and States, the importance of cooperative and competitive federalism in ensuring a balance of fiscal federalism cannot be ignored. There have been complaints that different Finance Commissions were favouring different states.

For instance, there are widespread complaints that "a much smaller favour was shown to Andhra Pradesh by the Tenth Finance Commission, when it adjusted 50 % of the revenue loss on account of introduction of prohibition to the estimated revenue for purpose of working out the non-plan revenue deficit" (Thimmaiah, 2002). Then in the case of the 11th UFC it was reported that the Commission favoured West Bengal compared to many other poorer states (Thimmaiah, 2002).

There was controversy over the 15th UFC's Terms of Reference that stipulated that data for fiscal devolution will be based on the 2011 Census[11]. While the population is an important factor in determining the tax revenue distributed, the South Indian states protested because their share will get cut as they have less population growth between 1971 and 2011 due to adoption of population control measures. The Southern states alleged that they are simply being punished for checking the population growth while the North Indian states are being rewarded for their poor implementation of population control programmes. The 15th UFC, by keeping the weightage of 2011 population at 15% and giving an additional 12.5% to demographic performance (which is the inverse of fertility rate), has shown sensitivity to the concerns of these states (Rao, 2020).

Part VIII -Discussion and Conclusion

The health grants to local governments have the potential to strengthen decentralization and devolution of funds in terms of health. It is worth mentioning that, while making such recommendations, the 15th UFC has made sure that it introduced pandemic-induced reforms without comprising on constitutional principles, and also sustained a balance between fiscal and federal transfers between the union and the states and among the states.

The pandemic has not only hampered the growth prospects of the economy, but also exposed the underfunded and understaffed primary healthcare system in India, and the 15th UFC also cites this as the biggest reason for introducing health grants or targeted grants linked to performance-based criteria for certain sectors. The 15th UFC states that "Involving PRIs as supervising agencies in these primary healthcare institutions would strengthen the overall primary health care system". Strengthening the local governments in terms of funds, resources, health infrastructure will equip them to play a catalytic role in healthcare delivery.

Further, the suggestion for introducing the All India Medical and Health Services and nurse practitioners have the potential to strengthen the number of doctors, nurses and other paramedical staff at the grassroots level. It can resolve the human resource paucity at the grassroots level. For instance, every allopathic doctor in India caters at least 1,511 people, which is much higher than the WHO norm of one doctor for 1,000 people. Much more worrying is the shortage of trained nurses, with a nurse-to-population ratio of 1:670 as against the WHO norm of 1:300.

In terms of health infrastructure also the situation is deeply disappointing; the RHS 2019-20 points out that there is a significant shortfall in the number of centres required, ranging from 23% of SCs to 28% of PHCs to 37% of CHCs. The RHS 2019-20 also points out that there is severe deficit of public health facilities in states including Bihar, Jharkhand, Uttar Pradesh and West Bengal. The recommendations by the 15th UFC can help a great deal in constructing an equitable healthcare system for the marginalized and the poorest of the poor.

Through the allocation of the health grants to local governments, the 15th UFC has pioneered the process of ensuring the 'authority and accountability' in the domain of health is devolved to PRIs. The involvement of local governments and empowering them would financially also make the health systems more accountable to the people. The decentralization of health will create a sense of responsibility (accountability) and a sense of ownership (authority) that will lead to sustainability and longevity of public health institutions.

While the 14th and 15th UFCs adopted a trust-based approach towards local governments, a section of policy and development experts still view local governments as 'corrupt' and 'inefficient'. . It is also disappointing to note that there have been no major active discussions on the significance of health grants allocated to local governments in the wake of Covid 19 pandemic[12], With even the media only highlighting the surface-level fact that the 15th UFC announced health grants to local governments.

The 14th UFC laid the foundations for the trust-based approach and the 15th UFC by imbibing this spirit of trust-based approach introduced the category of health grants to local governments in the wake of Covid 19 pandemic. Though the recommendations made by the 15th UFC are historic, it is also important to note that the lack of sensitization towards local governments, misconceptions about local governments and their stakeholders, absence of an institutional monitoring mechanism to conduct a follow-up of the recommendations made by the respective Finance Commissions, lack of co-ordination between various Ministries of union and state governments, and the erosion of cooperative federalism have jointly led to 'Mission Creep' in the distribution and allocations of grants and funds from the Finance Commission to state and local governments. The above discussions and facts lead us to believe that, unless there are serious efforts to address the trust deficit towards local governments from the part of union and state governments, the health grants announced by the 15th UFC may eventually become a victim of 'Mission Creep' Syndrome as well.

References

Accountability Initiative, Centre for Policy Research. 2019. A Study for the Fifteenth Finance Commission, Centre for Policy Research, New Delhi.

AnanthPur, Kripa and Research Team. 2021. A Study on Need Based Devolution to Rural Local Bodies in Tamil Nadu, Madras Institute of Development Studies (MIDS).

Belagere, Chetana. 2021. "Indian medical service cadre soon?" *The New Indian Express,* March 21, 2021. Accessed March 25, 2021: https://www.newindianexpress.com/cities/bengaluru/2021/mar/21/indian-medicalservice-cadre-soon-2279481.html

Comptroller and Auditor General of India. 2016. *Report of Comptroller and Auditor General of India on Local Self Government Institutions, Government of Kerala.* Report No. 5, New Delhi: Union Government.

Chakraborty, Pinaki. 2021. "Balancing Fiscal Need and Macroeconomic Stability: COVID-19 Context and the Fifteenth Finance Commission", *Economic and Political Weekly*, 56(33).

Finance Commission of India. XV Finance Commission Report for 2021-26*, Finance Commission in Covid 19 Times*, Volume I Main Report, October 2020.

Kodi S M. and Sharma S K.2021. "Realities, Scope, Challenges, and Facilitators for Implementation of Nurse Practitioner's Role in India: A Review*," International Journal of Nursing Sciences*, 8(2):237-242.

Lahariya, C. 2020. "Health & Wellness Centres to Strengthen Primary Health Care in India: Concept, Progress and Ways Forward," *Indian Journal of Paediat*rics, 87:916–929.

Lowe, Grainne., Tori, Kathleen, Jennings, Natasha., Schiftan Dan and Driscoll, Andrea. 2021. Nurse Practitioner Work Patterns: A Cross-Sectional study. *Nursing Open*. 8(2): 966-974.

Maier, C. B, Barnes, H., Aiken, L. H, and Busse, R. 2016. "Descriptive, cross-country analysis of the nurse practitioner workforce in six countries: size, growth, physician substitution potential." *BMJ open*, 6(9): e011901.

Nair, N V and Moolakattu, J S. 2018. *Fiscal Decentralization and State Finance Commissions*, Mittal Publications: New Delhi.

Nankani, Mahek. 2022. "Who's stopping an Indian Medical Service? The govt — it thinks IAS officers are enough." *The Print,* January 4, 2022. Accessed January 15, 2022: https://theprint.in/opinion/whos-stopping-an-indian-medical-service-the-govt-it-thinks-ias-officers-are-enough/794183/

National Health Systems Resource Centre (2021). Operational Guidelines for PM Ayushman Bharat Health Infrastructure Mission.

Press Information Bureau. 2021. "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana" (Press Release from Ministry of Health and Family Welfare), 14. *Press Information Bureau,* July 23, 2021. Accessed May 17, 2022: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1738169

Rao, Govinda M. 2020. "Continuity and fiscal follow-through." *The Hindu,* February 5, 2020. Accessed February 5, 2020: https://www.thehindu.com/opinion/lead/continuity-and-fiscal-follow-through/article30736905.ece

Rao, Govinda M. 2021. "Fiscal Transfers in Pandemic Times," *Economic and Political Weekly,* 56 (33).

Rural Health Statistics (2019-2020), Government of India, Ministry of Health and Family Welfare Statistics Division, Government of India.

Shukla, Anuradha. 2020. "Fifteenth Finance Commission told to review stand on special and nutrition grants." *The New Indian Express,* February 3, 2020. Accessed: February 4, 2020: https://www.newindianexpress.com/business/2020/feb/03/fifteenth-finance-commission-told-to-review-stand-on-special-and-nutrition-grants-2098249.html

Thimmaiah, G. 2002. "Finance Commission: Decline of a Constitutional Institution," *Economic and Political Weekly,* 37, (47):4664-68.

Times News Network. 2021. "The Finance Commission has tried to balance the three criteria of need, equity and efficiency." *Times of India,* February 5, 2021. Accessed February 6, 2021: https://timesofindia.indiatimes.com/blogs/the-interviews-blog/the-finance-commission-has-tried-to-balance-the-three-criteria-of-need-equity-and-efficiency/

Notes

[1] UFC was set up under Article 280 of the Constitution and their major responsibility is to evaluate the state of finances of the union and state governments and to lay out recommendations for the sharing of taxes between them and to formulate the principles determining the distribution of taxes among the states. Promoting fiscal stability and strengthening cooperative federalism is also among the primary responsibilities of the UFC. The UFC is appointed by the President of India every five years.

[2] The 15th UFC was constituted in 2017. In 2019, the union cabinet approved the 15th UFC to submit its first report for the fiscal year 2020 -21. The union cabinet also extended the term of the 15th UFC by one-year to October 30, 2020 to present the final report covering 2021-22 Financial Year to 2025-26 by October 30, 2020.

[3] Following the 73rd and 74th Amendments, so far four UFCs (11th UFC to 14th UFC) have given their recommendations for local governments. Each UFC highlighted the critical issues faced by the local governments and made recommendations to address them. Since the 10th UFC was constituted in 1992, a year before the Amendments came into force, its ToR did not specify considering grants for the local governments. However, it still recommended grants, which were equivalent to 1.38% of the divisible pool to the local governments.

[4] 2021-2026

[5] The 15th UFC has recommended a post-devolution revenue deficit grant of Rs. 2,94,514 crore for 17 states from 2021-22 to 2025-26 (Chapter 10, 10.19 Para 12.57, pg. 371).

[6] India's overall allocation for health and well-being has soared by 137% in the financial year 2021-22. The Union Finance Minister Nirmala Sitharaman in the Union Budget presentation pointed out that the "budget outlay for health and wellbeing is (pegged at) Rs 2,23,846 crore in BE (budget estimate) 2021-22 as against 2020-21 budget estimate of Rs 94,452 crore, an increase of 137 per cent".

[7] Mission Creep is a gradual or incremental shift from the original goals, objectives, scope, and commitment of a project or mission, so that the original purpose/idea begins to be lost (Oxford Dictionary).

[8] The 14th UFC submitted its Report for the period April 1, 2015 to March 31, 2020 on December 15, 2014. In 2019 and 2020, the first author undertook a field visit in selected 30 GPs from all the 14 districts in Kerala to assess the fiscal devolution of grants to local governments. As part of the field visit, a number of discussions were held with elected functionaries and panchayat level official functionaries and they said that they are not directly receiving the grants in the bank account of the respective Panchayats and instead it is going to the treasury accounts where the Panchayats can only draw from the account as per the treasury rules. They said that it had resulted in inordinate delays in the receipt of their entitled funds. The allocation of the proposed plan size as 'Development Fund' to local governments is the sum total of three sources including Plan Fund, UFC awards and World Bank supported, 'Kerala Local Development Service Delivery Project' (Nair and Moolakkattu, 2018). It is also stated that grants to local governments by UFCs where subsumed in the 'Development Funds' devolved by the state government (Report of the Comptroller and Auditor General of India on Local Government Institutions, Government of Kerala, 2016).

[9] The first author conducted an extensive fieldwork in the selected 19 Village Panchayats in Tamil Nadu as part of a study assigned by Madras Institute of Development Studies (MIDS), Chennai in 2021 (Ananth Pur and research team, 2020- 21). The findings and inferences regarding the 14th UFC were obtained during the field visit. Previously, as part of the District Level Monitoring in 2018 in 60 selected Village Panchayats in Tamil Nadu, the same inferences were made.

[10] In 2018, and 2019 the authors as part of the District Level Monitoring visited 10 GPs each in 20 districts in Karnataka. The following inferences were made and observed during the field visits in the given time period. As per the state government order (Government Order No: GAP10 GPS 2015, Bengaluru, dated 10-03-2015), 25% of the 14th UFC awards had been deducted and deposited under Escrow Account of the respective Panchayats.

[11] All the previous Commissions that are up to the 13th UFC only used the 1971 Census data and the 14th UFC gave 10% weightage for the 2011 Census data.

[12] On January 8, 2022, Gulati Institute of Finance and Taxation (GIFT), a policy and research institute based in Thiruvananthapuram, Kerala and Kerala Economic Association (KEA) conducted a webinar on the state's health sector as part of the public lecture series (webinar) on 'Kerala Economy in Transition.' Though the participants noted that inadequate funding is the major hurdle for the development of public healthcare system, none of the participants (including a number of eminent public health experts) mentioned about the health grants allocated to local governments by the 15th UFC. Kerala, being a 'role model' in terms of health and decentralization and devolution of funds should facilitate more discussions on health grants and the public health experts should take a conscious effort to sensitize the public and local governments about the health grants to local governments.

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Have WEIRD societies entered a cul-de-sac?

A review article based on 'The Weirdest people in the world' by Joseph Henrich

V Anantha Nageswaran[*]

Two recent books, 'Plagues and People's by William McNeill and 'The WEIRDest people in the world' by Joseph Henrich, provide very good clues on the evolution of the world in terms of economic development and material prosperity.

The two books have to be read together to understand how and why Asian and other civilisational areas (West Asia) fell behind in the second millennium of the Common Era. They help us understand why several economies – in developing South Asia and in Africa – have not achieved economies of scale with their industry.

In 'Can India grow?' Gulzar Natarajan and this author wrote about the fragmentation of many industries in India. Scale is conspicuous by its absence. Even now, the number of companies in India with a share capital of over 100 crores, or a sales turnover of Rs. 1,000 crores and above, stands at a few thousand.

The underlying drivers of this issue have been explored by this author before[i]. They are described in these pieces as 'arms-length capitalism' and 'arms-around capitalism'. The first refers to non-relationship-based economic interaction; the second is relationship-based. Frequently and historically, the latter runs the high risk of degenerating into cronyism, especially if it leads to a relationship between the regulators and the regulated – to the detriment of the overall industry, the economy, and consumers.

In recent years, in the West, arms-length capitalism has begun to degenerate into 'arms-around' capitalism, partly due to the revolving door between government roles and employment in the industry. Rajan and Zingales (2005) have written that societies marked by relationship-based capitalism will soon have to migrate or graduate to 'arms-length' capitalism if they are to develop economically.

They were right with their prescription; at that time, however, they did not know how it would happen. That is, the cultural pathways to creating a society that was comfortable dealing with strangers based on trust, contracts, and other social arrangements were not well understood. The role that the religion of Christianity played, thanks to the part played by the Roman Catholic Church was not known either. Henrich's book, about what he calls Western, Educated, Industrialised, Rich, and Democratic (WEIRD) societies, fills that void.

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Edit (22 September 2022): In an earlier version, the R in WEIRD was erroneously expanded to Religious instead of Rich. This has been corrected.

The Roots of WEIRD Societies

A review of the book published in 'The Atlantic' (Shulevitz, 2020), and a three-line summary of that review article from this author capture the one key message of the book:

> "...the ability of the West to interact, do commerce with, and trust strangers – thus creating scale economies and the institutions that sustained and supported them – can be traced to the strictures that the Catholic church placed on 'kinship' marriages." (Nageswaran, 2020)

As mentioned earlier, religion and the Church have played very big parts in the development of WEIRD societies. The preface documents how literacy advanced in several European societies well before the advent of state-funded schools. This development is traced to Martin Luther and the Protestant reformation, which posited a personal relationship between God and his devotees. To establish such a one-to-one relationship, people had to learn the Bible. Thus began the investment in reading and literacy. Since the original Bible was in Latin, it had to be translated into multiple languages. The rise of Protestantism and literacy went hand in hand.

As per the footnote attached to this story, it was not the discovery of the printing press that led to the spread of literacy, but the other way around. In many other parts of the world, where some form of printing had existed before, there was no such comparable spread of literacy.

It is worth taking note of this: *Centuries later, as the Industrial Revolution rumbled into Germany and surrounding regions, the reservoir of literate farmers and local schools created by Protestantism furnished an educated and ready workforce that propelled rapid economic development and helped fuel the second Industrial Revolution.* (Henrich, 2020, p. 13).

Characterising WEIRD and non-WEIRD Societies Today

In brief, WEIRD people are highly individualistic, self-obsessed, control-oriented, nonconformist, and analytical. The WEIRD person focuses on themselves—their attributes, accomplishments, and aspirations—over their relationships and social roles. (Henrich, 2020, p.21).

By contrast, behaviour in non-WEIRD societies involves (1) conforming to fellow in-group members, (2) deferring to authorities like elders or sages, (3) policing the behaviour of those close to you (but not strangers), (4) sharply distinguishing your in-group from everyone else, and (5) promoting your network's collective success whenever possible. (Henrich, 2020, p. 28).

In WEIRD societies, one is expected to behave 'consistently' with all others. Whereas in non-WEIRD societies, it is normal to change one's behaviour according to context. One can be very humorous with friends and extremely deferential to those in authority. That would be hypocritical to members of the WEIRD societies but entirely normal in others.

The inability to behave differently according to contexts and seeing it as hypocritical leads WEIRD members to lean towards moral universalism. In other words, Henrich writes, moral truths exist in the way mathematical laws exist. It also leads to overconfidence. Combine the two, and we now have a good handle on how and why western policymakers responded to the global financial crisis of 2008, as also many of the choices made during the COVID-19 pandemic.

It also explains why the typical WEIRD economics textbook is written as though it were universally applicable. There is no room for path-dependency in these economic theories. There is only one right way to do policy: free trade, balanced budgets, flexible labour markets, globalisation and deregulation. Now, as the context is changing, those steeped in such thinking are struggling to adapt. Universalism and overconfidence helped WEIRD members colonise the world and spread their word. Now, they may prove to be their undoing.

Exploring the Limits of WEIRD Psychology

Henrich does not delve into the downside of WEIRD psychological attributes. Interestingly, the concept of Cumulative Cultural Evolution (CCE) – which he describes (p. 65) – is a concept that may not be easily understood by people with WEIRD psychology. This does not accord well with the WEIRD tendency for neat, rational explanations, with clear identifiable cause-and-effect relationships.

To illustrate this point: in response to the article 'This is how civilisations collapse' (Roussinos, 2021), a reader wrote the following comment:

> Perhaps the funniest thing about this comments section is that a considered, researched piece of deep analysis like this, which is really talking about civilisational cycles over centuries, is immediately greeted with a chorus of 'so what's the solution, pessimist?'
>
> This kind of solutionism – the notion that every 'problem' can be 'solved' by us, now, today – seems to be very much a part of the creaking modern edifice. How do you 'solve' a civilisational cycle? What would make you imagine that you can sort everything out to your liking? What if we just have to live through it? What if trying to 'solve' the world is part of what is knocking it sideways?

The reader who posted this comment is thinking in a non-WEIRD manner. That brings us to one of the deficiencies or gaps of the book: Henrich probably did not set out to extoll WEIRD cultural traits and psychological attributes, seeking rather to explain how WEIRD societies evolved and how their evolution might have made them economically successful in the past; nonetheless, he ends up giving the impression that WEIRD psychology is flawless.

If that were the case, arguably, WEIRD societies would not collapse. They are, right in front of our eyes. Part of the reason, of course, is that they are not recognising that being WEIRD is what made them successful. They are un-WEIRD-ing themselves.

From kinship societies to pre-modern states

In Chapter 3, Henrich traces somewhat painstakingly the processes by which clans grow bigger: competition, assimilation, and migration. Simply put, the rise of agriculture (about 20,000 years ago), as the earth warmed up, helped clans scale up. To farm, one needed land; clans that could hold on to and secure their land began to prosper. One of the ways in which clans succeed in inter-group competition is through wars and conflicts. Then, the norms of the vanquished or defeated clans are assimilated into the existing norms, and the band of followers of these new practices now expands.

Clans adopt certain approaches to assimilate other clans and practices. However, one needs a centralised authority to augment dwindling resources, respond to natural disasters, and successfully make war upon and conquer other societies. How does one bring that about? Henrich is less sure of how this happened – the emergence of a central authority. He traces it to public debates wherein ownership of rituals is challenged, and the gaining of control of another clan's rituals. The followers of these enlarged set of rituals – once a clan emerges victorious –can be moulded into an army (for an army is founded on an elaborate set of rituals and beliefs). Once all this is done, then how does one go from a pre-modern state to a modern state?

Enter religion and the Church.

Competition is always and everywhere desirable

Before we move on to the role of religion, we have to record here an excellent set of observations that Henrich makes. They resonate very well today and explain much of what is happening in America, as also in other so-called WEIRD societies:

> Once intergroup competition wanes, which often happens when states or empires manage to eliminate their competition, things slowly fall apart. Without the looming threats posed by competing societies, the competition among ruling families within a society will intensify and gradually tear the state-level institutions apart. Cracks, gaps, and loopholes appear even in the best institutions, allowing narrow elite interests to flood in, as lineages, clans, and sometimes entire ethnic communities devise ways to exploit state institutions for their own ends.
>
> Complex societies always collapse as the higher-level institutions that integrate and unify them eventually deteriorate and crumble. As institutions fail and centralized political organizations collapse, inequality rises and larger societies break down into their sturdiest constitutive parts, which are usually tribes, clans, or residential communities.
>
> Even when kin-based institutions have been suppressed by state institutions, their fundamental grounding in our evolved psychology enables them to readily reassemble themselves—in the advent of a state collapse—to resume the functions previously usurped by the state. (p.120)

The elimination of competition is not good. The collapse of the Soviet Union, in that sense, is the worst thing that could have happened for America. Within thirty years of that, America faces existential questions. America, a successful WEIRD society, is now in the process of un-WEIRDing itself, breaking down into its component clans and tribes: immigrants, blacks, under-educated white factory workers, coastal elites, progressives, woke, liberals, conservatives, far-right, extreme-left, etc. To be sure, there is much overlap here and that the above categories are not clans or tribes as evolutionary psychology may define. But, one gets the idea of what is happening.

The unravelling of WEIRD societies creates both possibilities and uncertainties. The chief uncertainty is what comes next? Still, before one worries about the future of the WEIRD societies, let us first examine, through Henrich, how they succeeded in the first place – and whether we in India can emulate some or all of it, particularly as India tries to emerge as a middle-income country by the end of the decade, if not sooner.

The role of religion in building trust and the WEIRD family

Religion has played a very big role, in general, in forging large communities and in facilitating transactions between strangers:

> Religions have fostered trade by increasing trust, legitimized political authority, and expanded people's conceptions of their communities by shifting their focus from their own clans or tribes to larger imagined communities like "all Muslims." This background will set the stage for understanding how the Western Christian Church of the Middle Ages shaped European families, cultural psychology, and communities in ways that opened a pathway to the political, economic, and social institutions of the modern world. (p. 128)

But, in the presence of so many Gods and beliefs, how to forge a common belief in one God and one religion, that all can identify with, so that there is trust and exchange between people who believe in multiple Gods?

One of the important and interesting things that Henrich mentions is that societies that believed in supernatural punishments scaled up faster. Of the three principles that seemed to underlie all religions – contingent after-life, free-will, and moral universalism – contingent after-life, particularly the belief in hell (more than heaven), was found to be associated with greater productivity, economic growth and less crime. The logic works like this:

> The psychological impacts of beliefs about godly desires, divine punishment, free will, and the afterlife combine with repetitive ritual practices to suppress people's tendencies toward impulsivity and cheating while increasing their pro-sociality toward unfamiliar co-religionists. (p.151)

Add to this mix the Church, and how it shaped the WEIRD family by drastically altering the institution of marriage. In Chapter 5, Henrich offers an important clarification: WEIRD families are not the product of the Industrial Revolution, economic prosperity, urbanisation, etc. The causality runs the other way.

The Church succeeded in altering the shape of the typical European family with its extreme package of prohibitions, prescriptions, and preferences surrounding marriage and the family. Before the Church arrived, the pre-WEIRD Roman family arrangement would sound familiar to many of us. It was patrilineal; men had fewer sexual constraints, although marriages were monogamous by default.

How did the Church gain so much legitimacy as to influence centuries-old practices and uproot kinship-based societies and practices? Henrich does not provide clear answers, except to note that imposing these policies took centuries and that, by about 1000 CE, through its relentless efforts, the Church had succeeded in reshaping Anglo-Saxon (English) kinship.

Henrich notes: "*...there was no single coherent program here, at least in the beginning. Things look scattershot and idiosyncratic for centuries; but slowly, the successful bits and pieces coalesced into the Church's Marriage and Family program – the MFP..... In pre-Christian Europe, as in much of the world* *until recently, marriage customs had evolved culturally to empower and expand large kin-based organisations or networks.*" (The Church's MFP started as early as in the fourth century CE.)

Two key elements of the Marriage and Family Program (MFP) were to ban cousin-marriages up to sixth cousins, which happened in the twelfth century CE, and to prohibit marrying in-laws after the spouses died (such marriages were labelled incestuous). So, the widow, for example, was free to look outside for another partner. Importantly, any wealth she had went back with her; it did not enrich the dead husband's kin-group. Therefore, the Church also stood a chance to inherit such properties.

Indeed, the Church' constraints on adoption, polygamy, and remarriage meant that many families found themselves without heirs, and their wealth flowed into the coffers of the Church, making the Church the largest landowner in Europe. By 900 CE, the Church owned about a third of the cultivated lands in Western Europe.

It must be noted that no other group-living primate species have the noncultural equivalent of monogamous pair-bonding that the Church foisted on Europe, and that the rest of the world has copied. Henrich writes in detail (Chapter 8) that polygynous marriages were advantageous both for men and women. However, polygyny left many men with few prospects for marriage or even sex, rendering them prone to violence and crime. Polygyny makes men expend more efforts towards finding additional mates, whereas monogamy reduces their testosterone levels and makes them concentrate on caring for their infants. Thus, initially, natural selection might have favoured polygyny; however, cultural evolution under the influence of the Church brought about monogamy. From Europe, it spread to the rest of the world, as other societies copied the formal institutions, laws and practices of successful Europeans – ranging from democratic institutions to wearing neckties!

When Europeans began to form towns, guilds and religious institutions in the 10th and 11th centuries CE, it is natural that their experiences of living in monogamous societies shaped the kind of organisations that evolved and the laws that were framed.

'Why?' and 'How?' are the two important questions. Why did the Church announce these taboos? The motivations for the Church' edicts stemmed from the belief that the plagues were a punishment by God for incestuous marriages; part of the motivation was already available from the idea of 'Original Sin' itself. Henrich writes that the Church cashed in on our innate aversion to inbreeding; compared to other religious groups, it got lucky. There was "*no long-term instrumental vision for how they would create a new kind of world.*"

How it succeeded in imposing these norms is not clearly explained in the book, though one should remember the Church was also relentless. As Henrich writes, when proselytising preachers failed or got killed, they were soon replaced by fresh recruits. They never stopped and never gave up.

The economic consequences of WEIRD and non-WEIRD family structures

To an extent, we have to agree with Henrich: what matters to us today are the consequences of the successful MFP of the Church. It established a pan-tribal social identity (Christian). It compelled individuals to look far and wide to find unrelated Christian spouses, and provided a new set of marriage and inheritance norms through which diverse tribal communities could now interact, marry, coordinate, and enlarge.

Scaling up of societies, evolution of urban agglomerations, and arms-length capitalism were thus offshoots of the unimaginably successful MFP of the Church. As Henrich writes, "*Relational freedom spurred residential mobility.*" Although Islam too is an Abrahamic faith, it could not emulate the success of Christianity in preparing the society as a fertile ground for scale and technology-based industrial revolution and capitalism because it is very much based on kinships and clans. It remained and remains highly patriarchal, whereas the Church weakened patriarchy considerably.

In the next chapter, Henrich discusses the Kinship Intensity index (KII). Countries that score high on KII distrust strangers, new people, and adherents of other religions more. Interestingly, while India scores high on KII, its impersonal trust score is also relatively high. As with many things, India does not fit into neat boxes.

That said, India still features many elements of kinship-based societies. Indeed, India's relatively high levels of industrial fragmentation can be traced to the fact that kinship matters for economic and other interactions and relationships in India. Families mostly appoint their own members to important managerial positions in businesses. Marriages are only within the same community and clan. Parenthetically and somewhat tangentially, it raises the question of the appropriateness of one currency for the whole of Europe.

Viewed from the angle of creating a large mass of people who thought of themselves more as Indians and less as members of clans and groups, did the British influence help India? Did they, to some extent, introduce WEIRD practices and norms into a predominantly kinship-based society and, in doing so, did they make Indian society a little better prepared to industrialise than it would otherwise have been? Alternatively, did their mere presence galvanise Indians into sinking their inter-group differences in favour of a common identity?

On the negative side, as the next section discusses, imposing WEIRD cultural practices and norms on kinship and clan-based societies can also be linked to several adverse consequences. To a large extent, India continues to reap the whirlwind of this.

Institutions and cultural psychology

Interestingly, in chapter 6, Henrich describes a Public Goods Game in which the participants from WEIRD and non-WEIRD societies behaved very differently. Participants from WEIRD societies did not hesitate to punish low performers and they did not retaliate if punished. Whereas participants from non-WEIRD societies did not like to punish low performers from their own groups; those who were punished later sought to take revenge – because such things are *not done*. Group cohesion and loyalties matter more than performance or productivity.

Henrich draws a seemingly obvious lesson from this: "policy prescriptions and formal institutions need to fit the cultural psychology of the population in question." But, how often is this kept in mind? Public policy institutions and institutions of governance copied from or imported from the West may not function well in kinship-based societies, and may even cause harm. For example, in communities with a centrality of relational ties and where social and family connections matter, building law and government around individual rights isn't common sense, as Henrich notes towards the end of the book.

The most important point that Henrich makes is this: superimposing the impersonal institutions of politics, economics, and society – forms that developed in Europe – on kinship-based societies means that the web of social relationships that bound and protected people gave way to urbanisation, social safety nets, and individualistic notions of success. People in such societies faced a loss of meaning they derived from being a part of a broad network of relationships.

The possibility Henrich describes is in evidence in many societies, including India, that tried to copy western models because their elites became enamoured of the European WEIRD society and the primacy of the individual over the group that it entailed. This poses a dilemma for non-WEIRD societies: their economic arrangements and sizes necessitate emulating and copying the WEIRD model of impersonal trust, fairness, equality before law, and the institutions of governance that they entail. At the same time, these are alien to their social models, that date far further back in time.

Indeed, even the inhabitants of the WEIRD societies are not exempt from the loss of meaning that WEIRD values and social arrangement eventually generate. Has the WEIRD psychology, therefore, driven all of humanity into an existential cul-de-sac?

Marriage and Family Program prepared the West for technology-led capitalism

The Great Plague destroyed lives and raised the relative price of labour. Hence, technology and scale-based economic arrangements became necessary (Temin, 2014). Large-scale production requires that organisations transcend relationships and bank on large-group trust. The Church's MFP had already prepared the ground for large-group formations.

Some contend that the rise of the West and the relative decline of the East was not due to these elements; rather, it was – for instance – that the British destroyed the entrepreneurial class in India. As a friend once expressed to this author: it was the British who brought the concept of the public sector into India, in that the East India Company was backed up by the armed powers of the British empire, making it a public sector enterprise that destroyed India's entrepreneurial class.

While there is something to this counterargument, one does not have to deal in binaries. In other words, the validity of this explanation need not preclude the relevance of other arguments, including the success of the MFP in setting the stage for scale-based industrialisation and capitalism in the West. Further, the latter also explains the prosperity of non-colonising Western powers too (such as Nordic and Canadian).

India's lack of scale and persistent fragmentation in several sectors of the economy can, in this author's view, be traced to the fact that it was (and is still, to a large extent) a kinship-based society. How does one get over this constraint? It may not be easy. When we evaluate how and why India's evolution into a modern WEIRD state is taking longer, perhaps, than some of us would like, it can be traced to this:

> The fact that people couldn't simply wipe away their ancient kin-based institutions when building these new non-relational or impersonal institutions creates what researchers call a strong path-dependence.

That said, the wheels of capitalism might have completed one large and long circle, and the gap may not be as large as it appeared to be even a decade or two ago. To be sure, India needs many of its micro and small enterprises to reach medium scale; on the other hand, very large enterprises may not be as much a desired priority, given the issues they give rise to, such as market concentration, usurpation of state power, and the adverse effects on the balance between capital and labour, etc. For individuals, the scale-based model of capitalism has robbed meaning in their lives as seen in the rise of 'bullshit' jobs (Graeber, 2018)

The twilight of WEIRD societies

For nearly three centuries, it appeared that the Church's MFP had helped the West advance economically; however, it might have also paved the way for atomised societies and ills of individualism, on the one, hand and the concentration of too much power in the hands of businesses on the other. Nor have their WEIRD values made these societies resilient to or exempt from the bane of corruption and capture, both by external and internal interests.

WEIRD societies, featuring impersonal trust and kindness to strangers and cooperative outcomes, did not lend themselves to the self-interest and competition-driven 'rational' behaviour described in economics textbooks. Yet, WEIRD societies embraced such an economic philosophy (dating back at least to the 1970s) resulting in the extreme political and social polarisation, market concentration, wealth inequality, and economies increasingly resembling Ponzi schemes. 'Original' Protestant values, such as delayed gratification, morality, and impersonal fairness, have waned and almost vanished in WEIRD societies.

Henrich offers a post-hoc explanation for the ability of WEIRD people to absorb ideas from other non-WEIRD societies – because they were more open to new ideas than societies that were hierarchical, respectful of elders and were inclined to conformity. Contrast this claim with the fact that other WEIRD qualities went missing towards non-WEIRD societies. For all the supposed impersonal kindness and fairness, WEIRD European societies did not hesitate to pursue wars and wreak destruction on non-WEIRD societies. Non-WEIRD societies were won over, perhaps, as much by war and deceit as by the demonstrated superiority of WEIRD norms, ideas, institutions, and economic prosperity.

Further, the absence of external competition has made the WEIRD society turn on itself and is causing fragmentation. So, the culturally homogeneous WEIRD society, united in a socio-religious identity, may be breaking up into clans and groups. So, before non-WEIRD societies could shed their identity-based politics, WEIRD societies have returned to their roots – identity-based clashes.

Reading the book leaves us with questions to ponder. What would happen to WEIRD societies? Western, Educated, Industrialised, Rich and Democratic societies are chipping away, in varying degrees, at every single letter of the WEIRD. With some, the rot has gone far and with some pillars, the destruction has begun. What would that leave them with? What or who will take their place in the world?

In the end, there is no doubt that WEIRD societies featuring monogamy, religion and impersonal trust enabled scale-based capitalism. But, WEIRD societies could not stop the development of 'winner take all' attitudes in economics and commerce. Maybe, that is the inevitable last act of scale- and technology-based capitalism. The denouement could well be the end of the WEIRD societies as we know them.

References

Rajan, R. G., & Zingales, L. (2005). Which Capitalism? Lessons from the East Asian Crisis. *Journal of Applied Corporate Finance, 11*(3), 40-48.

Shulevitz, J. (2020, October). *A New Theory of Western Civilization*. Retrieved from The Atlantic: https://www.theatlantic.com/magazine/archive/2020/10/joseph-henrich-weird-people/615496/

Nageswaran, A. (2020). *Becoming a 'Weird' society may no longer be necessary for India*. Retrieved from KREA University: https://krea.edu.in/2022/01/11/becoming-a-weird-society-may-no-longer-be-necessary-for-india/

Henrich, J. (2020). *The WEIRDest People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous*. New York: Farrar, Straus and Giroux.

Roussinos, A. (2021, November 18). *This is how civilisations collapse*. Retrieved from Unherd: https://unherd.com/2021/11/this-is-how-civilisations-collapse/

Temin, P. (2014, May). *Economic History and Economic Development: New Economic History in Retrospect and Prospect.* National Bureau of Economic Research. NBER Working Paper Series. Retrieved from National Bureau of Economic Research: https://www.nber.org/papers/w20107

Graeber, D. (2018). *Bullshit Jobs: A Theory.* New York: Simon & Schuster.

Notes

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[i] See Nageswaran 2018 (Capitalism's triple whammy for the working class - https://bit.ly/3x7mzIj) and 2019 (Why socialism is gaining traction among millennials - https://bit.ly/3kTeGRZ)

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