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Design, Capacity, Performance

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The Reality of Indian Regulation

DEVESH KAPUR AND MADHAV KHOSLA*

INTRODUCTION

THE MODERN STATE has emerged as the most powerful territorially centralised form of organisation that shapes human affairs. Its focus has grown from minimalist 'night-watchman' goals to those that are far more wide-ranging. While the expanding goals of the state have been deeply contentious, with 'neoliberal' policies seeking to roll back the state in recent years, another dimension of contestation has been about means rather than ends – that is, how best to allocate economic resources, redistribute income and wealth, and affect the rate of economic growth. States have sought to achieve their goals via classic tax and expenditure policies, trade policies, expanding public sector employment and – especially in countries at earlier stages of economic development – building state-owned enterprises to promote economic development. The retreat of the state has been most pronounced in the direct production of goods and services (as distinct from their provision), where it has been replaced to a very large extent by the private sector.

While a principal goal of economic liberalisation has been the greater role of market forces and the private sector, it has also led to significant changes in state structures and market governance.[1] One of the ways in which state structures have undergone significant transformation is the astonishing growth of regulatory agencies. The rise of the 'regulatory state' is both part of a greater legalisation of the state and the judicialisation of the economy and society, as well as a part of greater formalisation of the relations between various actors in the capitalist economy. The redirection in the state's role from production to regulation has been mirrored in shifts in governments being organised around traditional branches – namely, the legislature, the executive and the judiciary – to governments that now encompass, in

* We are indebted to Ananth Padmanabhan, Milan Vaishnav and Raeesa Vakil for their help with an earlier draft.

[1] David Levi-Faur, 'The Global Diffusion of Regulatory Capitalism' (2005) 598 *Annals of the American Academy of Political and Social Science* 12.

addition, regulatory institutions with varying degrees of independence that incorporate elements of all three branches of government in their mandates.

We define regulation here as interventions by public agencies in the activities of a target population. The interventions that we have in mind are intentional and direct – involving binding standard-setting, monitoring and sanctioning – and which are exercised by public sector actors on the economic activities of private sector actors.[2] Regulatory agencies are thought to centre around four dimensions.[3] The first dimension relates to regulatory responsibilities: the extent of powers that agencies possess. The second dimension relates to managerial autonomy: to what extent do agencies have autonomy in their staffing, in their organisational structure, and in financial and budgetary matters? An important feature of the autonomy question is the separation between agencies and existing ministerial structures. The third dimension is concerned with political independence. What protection exists, such as perhaps the protection from being removed from office at will, that allows agencies to be immune from political forces? Finally, there is the question of accountability. What are the various forms of accountability that exist for agency behaviour? Are the forms of accountability vertical – that is, to the executive and/or legislature – or are they non-hierarchical forms of accountability that might exist, such as forms of accountability to stakeholders via participatory mechanisms?

While the rise of the regulatory state is a global phenomenon, its specific characteristics are rooted in distinct national contexts and the constellation of forces that led to the creation of specific regulators. As one might expect, the roots of the regulatory state lie in industrialised democracies. In the case of the US, regulatory institutions are deliberately 'politicised', with an underlying design philosophy that partisan political debate best ensures democratic accountability. Because they are faced with a powerful Congress intent on oversight, agencies are constantly exposed to the influences of majoritarian democracy. In contrast, the regulatory state movement in Europe has been driven by a very different force: the desire to 'depoliticise' contentious politically partisan issues and insulate technical matters from political pressures.

In the case of developmental states, such as in East Asia, the regulatory state rose in the context of democratisation and the crisis of the developmental state amidst financial globalisation. Pressures from the West and global forces called on the discretionary and collusive modes of doing business that were integral to the developmental state to be replaced by transparent and formally specified rules, which was effectuated by way of new regulatory agencies that would formulate and police those rules. Beyond developmental states, the rise of the regulatory state in the Global South, more broadly, has been shaped by three common contextual factors:[4] international

[2] Christel Koop and Martin Lodge, 'What is Regulation? An Interdisciplinary Concept Analysis' (2017) 11 *Regulation & Governance* 95.

[3] Jacint Jordana, Xavier Fernández-i-Marín and Andrea C Bianculli, 'Agency Proliferation and the Globalization of the Regulatory State: Introducing a Data Set on the Institutional Features of Regulatory Agencies' (2018) *Regulation & Governance* (forthcoming).

[4] Navroz K Dubash and Bronwen Morgan, 'The Rise of the Regulatory State of the South' in Navroz K Dubash and Bronwen Morgan (eds), *The Rise of the Regulatory State in the Global South* (Oxford University Press, 2013) 1.

pressures, especially from international financial institutions, to adopt the institutional innovation of regulatory agencies, particularly in infrastructure and financial sectors; a greater intensity of redistributive politics in settings where infrastructure services are deficient (and often non-existent); and limited state capacity. The first of these has resulted in weakly embedded regulatory agencies within the local political and institutional context; the second has inevitably drawn in other actors, especially courts and civil society; and the third encompasses a 'thin' and 'thick' dimension, the former covering organisational concerns of budget, personnel and training, and the latter the pressures on the state to manage multiple forms of engagement with diverse stakeholders in order to balance the competing concerns of growth, efficiency and redistribution.

The Indian experience is somewhat akin to that of other developmental states and the Global South. A *dirigist* state that was heavily interventionist found itself facing an economic crisis that led the state to withdraw from the direct control of large areas of economic life. The state subsequently moved in the direction of relying heavily on reformed, or newly created, regulatory agencies to manage economic life. These agencies were constructed to attempt to 'depoliticise' areas of economic life that had hitherto been heavily politicised. Since the liberalisation of the Indian economy in the early 1990s, the nation's governance structure has become increasingly regulatory in character. The admission of private actors into several domains meant that the prior model of administration, where the state had a monopoly and an executive ministry performed a managerial role, needed alteration. A notable feature of the new 'regulatory' structure was, and remains, the presence of regulatory agencies that operate with varying – and sometimes ambiguous and controversial – degrees of independence from the traditional political executive. Indeed, if economic liberalisation was meant to roll back the state, the rise of the regulatory state is a testament to the fact that, far from rolling back, the state has simply rolled over. It has, however, led to a more fragmented state apparatus. The emergence of the 'independent regulatory agency' has been a defining element in this institutional fragmentation, both in India and elsewhere.[5]

The principal reason cited for the rise of the regulatory state – the desire to de-politicise certain decision-making processes – and the concerns that have arisen with such regulation are familiar, both in India and elsewhere. Delegation to specialised agencies is a 'hand-tying' strategy that insulates 'technocratic' decisions from politically expedient ones. Agencies hold the potential to make determinations and exercise judgement based on expertise, as well as address issues on an ongoing basis. However, their structure and operation raise a range of questions relating to both democratic accountability and the rule of law.

Delegation has long occurred in constitutional democracies, and executive ministries have long engaged in regulation. But one consequence of the emergence of the

[5] See Karen Yeung, 'The Regulatory State' in Robert Baldwin, Martin Cave and Martin Lodge (eds), *The Oxford Handbook of Regulation* (Oxford University Press, 2012) 64. See also Daniel Halberstam, 'The Promise of Comparative Administrative Law: A Constitutional Perspective on Independent Agencies' in Susan Rose-Ackerman, Peter L Lindseth and Blake Emerson (eds), *Comparative Administrative Law*, 2nd edn (Edward Elgar, 2017) 139.

independent regulatory agency is that now, more than ever, a great deal of policy-making is performed outside of the legislature, inviting questions over the precise means through which such policy-making can be made accountable.[6] It is widely understood that regulatory states around the world must negotiate different kinds of tensions: the tension between the demands of the rule of law and formal constitutional principles; the demands of representation and accountability required by the democratic process; and the demands of economic efficiency.[7] In addition to these normative questions, there are a range of positive questions relating to the 'regulatory process' – these include agenda-setting; the negotiation of standards; and the implementation, monitoring and enforcement of actions through a welter of legal statutes, executive orders and judicial decisions, as well as the directives of regulatory agencies.

This volume is the first major study of regulation in India. Although several valuable studies of India's overall regulatory framework, as well as studies focused on specific sectors, have emerged in recent years, the scholarship on regulation in India is relatively sparse, especially given the growth in the scale and scope of the regulatory state in India.[8] A rare exception by economists examining the conduct of regulation in infrastructure and securities sectors in India asked whether regulators in the country were 'white knights that came to the rescue of sectors that were being mismanaged by public sector monopolies' or instead 'insidious de facto agents of government, perpetuating public sector control under a veneer of competitive forces'.[9] The authors concluded that performance varied across regulators, partly due to faulty design, but mainly because of 'lack of attention to the reform of the market structure and an inadequate understanding of the nature of interaction between the market structure and the effectiveness of the regulatory process'.[10]

The state of such a hypothesis today, well over a decade after it was made, is an important question and, in some ways, an open one. This volume considers an array of themes ranging from the legal and conceptual foundations of the Indian regulatory state, to its features across different domains, to aspects of its functioning and performance.[11] A significant portion of chapters concentrate on the legal

[6] See Susan Rose-Ackerman, 'Regulation and Public Law in Comparative Perspective' (2010) 60 *University of Toronto Law Journal* 519. See also Susan Rose-Ackerman, 'Citizens and Technocrats: An Essay on Trust, Public Participation, and Government Legitimacy' in Rose-Ackerman et al (n 5) 251.

[7] See Adrian Vermeule, 'The Administrative State: Law, Democracy, and Knowledge' in Mark Tushnet, Mark A Graber and Sanford Levinson (eds), *The Oxford Handbook of the US Constitution* (Oxford University Press, 2015) 259.

[8] For an overview of the Indian regulatory state, see TV Somanathan, 'The Administrative and Regulatory State' in Sujit Choudhury, Madhav Khosla and Pratap Bhanu Mehta (eds), *The Oxford Handbook of the Indian Constitution* (Oxford University Press, 2016) 386; Arun K Thiruvengadam, 'Flag-Bearers of a New Era? The Evolution of New Regulatory Institutions in India (1991–2016)' in Rose-Ackerman et al (n 5) 218.

[9] Saugata Bhattacharya and Urjit R Patel, 'New Regulatory Institutions in India: White Knights or Trojan Horses' in Devesh Kapur and Pratap Bhanu Mehta (eds), *Public Institutions in India: Performance and Design* (Oxford University Press, 2005) 455.

[10] Bhattacharya and Patel (n 9).

[11] It should be noted that this volume excludes those regulatory institutions that govern higher education and the professions, ranging from technical education (engineering and management) to medicine to architecture and so on.

architecture and framework at work. This focus is intended: the regulatory state is, after all, not merely structured and governed by law; the institutions and concepts that it involves are constructs of the law.[12] The rules that shape different sectors as well as the absence of rules in particular cases are constituted by the law, and underlining this fact is vital not merely in order to understand them but also to seriously pose the question of reform. Regulation in India is, perhaps even more than elsewhere, deeply embedded within the legal (and constitutional) framework operating in the country.

In this introductory chapter, we have chosen to resist exploring some of the general themes associated with regulation, from its capacity to respond to market failures and market limitations, to the ways to make it accountable. Instead, we have chosen to turn to certain features of Indian regulation that are distinctive. Our basic premise is that, for all the legal ambiguities and institutional weaknesses, studying the Indian regulatory state is unavoidable, and may even be the inevitable starting point for numerous other issues, from economic growth to inequality to democratic accountability. This premise is only strengthened by the fact that, despite the legal questions that critics pose, the reality remains that – as has been the case in many advanced democracies – Indian constitutionalism has 'accommodated' the rise of the regulatory state.[13]

I. DOCTRINAL INCOHERENCE AND UNCERTAINTY

In modern constitutional democracies, the executive, legislative and judicial branches of government are central actors in shaping the functioning of public institutions. However, in India, as in several other democracies, there has been a creeping expansion of judicial power.[14] The role of the judiciary with regard to the operation of regulators has been even greater given the absence of an overarching administrative law statute, such as the Administrative Procedure Act, 1946 in the US. As Raeesa Vakil's chapter shows, the Indian Supreme Court's approach began with a relatively thin conception of administrative law that was thickened over the years with the overlay of broad and somewhat ambiguously framed constitutional principles and rights jurisprudence.[15] Vakil captures how a field that is deeply embedded and nurtured

[12] This point about legal construction has recently been underlined in the context of law and economic relationships. See Katharina Pistor, 'A Legal Theory of Finance' (2013) 41 *Journal of Comparative Economics* 315; David Singh Grewal, 'The Laws of Capitalism' (2014) 128 *Harvard Law Review* 626.

[13] See Gillian E Metzger, 'Delegation, Accommodation, and the Permeability of Constitutional and Ordinary Law' in Tushnet et al (n 7) 409.

[14] See Ran Hirschl, 'The Judicialization of Mega-politics and the Rise of Political Courts' (2008) 11 *Annual Review of Political Science* 93.

[15] A fine example of this is the Supreme Court's approach towards the idea of natural justice. See Raeesa Vakil, 'Constitutionalizing Administrative Law in the Indian Supreme Court: Natural Justice and Fundamental Rights' (2018) 16 *International Journal of Constitutional Law* 475. On administrative review in India, see generally Prateek Jalan and Ritin Rai, 'Review of Administrative Action' in Sujit Choudhry, Madhav Khosla and Pratap Bhanu Mehta (eds), *The Oxford Handbook of the Indian Constitution* (Oxford University Press, 2016) 432.

with formal constitutional structures and practices has been translated to a new and complex arena – tribunals, regulators, agencies and authorities – with limited consensus among either scholars or the judiciary on even the most basic questions. Often, the dominant rights-based understanding of administrative law advanced by courts during the process of review deploys the language of fundamental rights violations, thereby limiting the growth and damaging the internal coherence of non-rights based – significant and distinct – grounds for review such as the doctrine of ultra vires or of legitimate expectations.[16]

A further feature noted by Vakil is that the much-needed renegotiation of the separation of powers doctrine has not occurred in India, with the Supreme Court continuing to be an overarching 'good governance' court while providing limited clarity on the permissibility and scope of delegation to the executive, on the specific demands from the legislative process, and on the norms involved in the establishment of regulatory agencies.[17] The idea of participatory rule-making, a major theme in the study of regulation globally, and one broadly seen as vital for democratic accountability and responsiveness, remains underbaked in the Indian context. Because the status of regulatory institutions in the three-branch separation is not adequately defined, such institutions often perform quasi-legislative functions without appropriate accountability and participatory mechanisms. The fact that Indian administrative law, crudely put, is 'missing in action' is further underlined by Farrah Ahmed and Swati Jhaveri's study of how the common law review of administrative action has been eclipsed by constitutional law, thereby resulting in doctrinal gaps and misalignments in addressing administrative failures and in providing guidance for administrators and citizens alike.

K Vivek Reddy takes the sub-optimal state of Indian administrative law one step further and provocatively questions its constitutionality. The constitutionality of the administrative state has, of course, been a matter of impassioned recent debate in the US.[18] Reddy notes, for example, that the separation of powers principle has only been applied to the regulatory state in narrow contexts such as judicial independence. In this context, the courts have certainly been vigilant in assessing the place that regulatory tribunals occupy within India's constitutional structure. A considerable degree of judicial doctrine has addressed the structure of regulatory tribunals (dispute settlement bodies to which regulatory decisions are appealed) in terms of their composition

[16] The nature of rights-based adjudication has also had a negative impact on the development of other areas of law. For a study in the context of private law, see Shyamkrishna Balganesh, 'The Constitutionalisation of Indian Private Law' in Sujit Choudhury, Madhav Khosla, and Pratap Bhanu Mehta (eds), *The Oxford Handbook of the Indian Constitution* (Oxford University Press, 2016) 680.

[17] This approach links, one should note, to the exercise of judicial review in India more generally. See Pratap Bhanu Mehta, 'India's Judiciary: The Promise of Uncertainty' in Pratap Bhanu Mehta and Devesh Kapur (eds), *Public Institutions in India: Performance and Design* (Oxford University Press, 2005) 158; Pratap Bhanu Mehta, 'The Indian Supreme Court and the Art of Democratic Positioning' in Mark Tushnet and Madhav Khosla (eds) *Unstable Constitutionalism: Law and Politics in South Asia* (Cambridge University Press 2015) 233.

[18] See Philip Hamburger, *Is Administrative Law Unlawful?* (University of Chicago Press, 2014); Adrian Vermeule, 'No' (2015) 93 *Texas Law Review* 1547; Philip Hamburger, 'Vermeule Unbound' (2016) 94 *Texas Law Review* 205.

and their staffing of judicial members, as well as their jurisdiction and how it relates to the jurisdiction of the Supreme Court and the High Courts under Articles 32 and 226 of the Constitution.[19] However, the constitutional legitimacy of other aspects of the regulatory state has not been sufficiently addressed.

Reddy points out, for instance, that the principle of collective responsibility – a core constitutional and political principle in parliamentary systems – has not been fully reconciled with the existence of regulatory agencies, which operate with varying and often unclear degrees of independence from the political executive. Courts often extend the same degree of deference to such agencies as they do to actions by traditional government ministries, an approach which has its justifications, but does not take into consideration the accountability vacuum present in the case of agencies. Traditional common law doctrines, such as the doctrine of ultra vires, have been less effective at regulating agency action than we might hope, for the mandates under which agencies operate are often defined in open-ended and even troublingly vague terms. Regulatory agencies in India thus operate under the blanket of ambivalent or antiquated doctrine, at times enjoying vast bundled powers of law-making, investigation, adjudication and enforcement, and resorting to new instruments such as close day-to-day supervision, inspection, detailed queries, advisory correspondence and guidance supervision.

There have, one should note, been some positive and important judicial interventions over time. The Supreme Court's recent decision in *Cellular Operators Association v Telecom Regulatory Authority of India* is one example.[20] This case involved both constitutional and legal challenges to a Telecom Regulatory Authority of India (TRAI) regulation that mandated one-rupee credits to subscriber accounts for each call drop occurring on telecom service provider (TSP) networks. In addition to raising standard administrative law challenges, including the claim that the regulation was ultra vires the parent statute, the TSPs alleged non-transparency on the part of the TRAI when weighing facts disclosed during stakeholder consultations.

The Supreme Court upheld the ultra vires challenge as well as declaring that the regulation violated Article 19(1)(g) of the Constitution. It could have allowed the TSPs' appeals on this basis without going any further, particularly because the TRAI Act, 1997 did not expressly delineate the 'transparency' requirement, despite mentioning it. But, instead, the Court chose to articulate new principles of regulatory review, relying in this regard on 'transparency' requirements fleshed out in a subsequent, unconnected enactment – the Airports Economic Regulatory Authority of India Act, 2008. While conceding that the TRAI carried out stakeholder consultations, the Court held that these fell short of the 'transparency' requirement because the post-consultation deliberations failed to reveal any discernible grounds

[19] Tribunals were enabled by an amendment to the Constitution in 1976 that inserted arts 323A and 323B into the text. See Arun K Thiruvengadam, 'Tribunals' in Choudhry et al (n 15) 412. Important decisions on tribunals include *L Chandra Kumar v Union of India* (1997) 3 SCC 261; *Union of India v R Gandhi* (2010) 11 SCC 1; *Madras Bar Association v Union of India* (2014) 10 SCC 1; *Madras Bar Association v Union of India* (2015) 8 SCC 583. For a recent decision on the question of appointments and composition, see *State of Gujarat v Utility Users' Welfare Association*, 2018 SCC OnLine SC 368.

[20] *Cellular Operators Association v Telecom Regulatory Authority of India* (2016) 7 SCC 703.

for disagreement with the TSPs' assertion that a sizeable percentage of call drops occurred due to consumer mistakes. Though refraining from holding this to be a general requirement across the board, the Court expressed the desire that Parliament would intervene to address the matter and enact legislation along similar lines to the Administrative Procedure Act in the US.

However, by and large, rather than carefully crafting a set of doctrinal principles that both enable and limit regulatory action in appropriate ways, the Supreme Court continues with its 'good governance' approach and sometimes resorts to blunt instruments such as bans, even if this approach does lend a degree of pragmatism to the process. This strategy of the Court is revealed by Susan Ostermann's chapter, which takes us through five different instances of judicial intervention – festival fireworks, correspondence courses in higher education, smoking in public spaces, the sale and registration of diesel vehicles, and highway alcohol sales. Judicially imposed bans in these cases emerge, she contends, when bottom-up 'fire alarm' mechanisms – whereby top-level leadership leverage citizen protests to expose egregious regulatory violations – fail to work due to weak state capacity on the enforcement front.[21] There is a fair degree of experimentation at play here as the Court attempts less harsh measures at first, converses with multiple stakeholders to gather information and graduates towards exemption-less bans only when other measures demand extensive monitoring and policing for them to work, or simply fall short of expected outcomes. Even in a case like the ban on highway alcohol sales, where the Court began with a ban without exemptions and did not explore other possibilities, Ostermann argues that an element of pragmatism is visible as the effort is to provide 'weak-link' actors with a simple enforcement tool rather than vest them with regulatory discretion. As these cases demonstrate, the judicial tendency is towards adjustments that can make bureaucratic functioning easier under extant circumstances rather than long-term capacity building that can enable more effective enforcement.

The claims offered by Vakil and by Ahmed and Jhaveri (that administrative law is under-utilised) and the one offered by Reddy (that administrative law is used but common law doctrines are less effective than we might suppose) may well be different sides of the same problem, which is that the judiciary appears to be making a conscious choice not to develop administrative law and instead relies on other methods, such as judicial overseeing, rights-based review and so forth. Together, these chapters indicate that the judiciary has been weakly invested in creating a new regulatory jurisprudence to meet the institutional changes in India's legal structure over the past three decades. Doctrinal changes and interventions have been piecemeal, and they are often situated oddly not only within the broader constitutional universe that structures the regulatory state, but also within one another. Why this is the case is a separate question. The answer is possibly rooted in what international relations

[21] Even in authoritarian China, the combination of strong coercive power but weak bureaucratic oversight has led to sub-optimal 'blunt force' regulation, especially in the case of environmental and financial regulation. See Denise van der Kamp, 'Blunt Force Regulation and Bureaucratic Control in Weak Institutional Environments' (draft on file with the authors).

scholars refer to as 'audience costs', a sort of populism that has afflicted the country's higher judiciary.[22] Judicial pronouncements rooted in the arcane minutiae of administrative law simply cannot match the publicity that constitutional jurisprudence attracts.

II. REGULATORY INCAPACITY AND STRUCTURAL WEAKNESSES

A second theme that looms large in several of the chapters in this volume is regulatory incapacity and a lack of systemic incentives to address this incapacity.[23] This incapacity is perhaps brought into sharpest focus when one considers situations where regulators are required to make scientific determinations, as seen in the context of air and water pollution as well as food safety. As Shibani Ghosh points out, India performs abysmally when it comes to drinking water quality, air quality, and general environmental and public health performance metrics. Focusing on the Water Act, 1974 and the Air Act, 1981, Ghosh argues that the effective implementation of both these enactments requires well-functioning boards supported by competent and adequate staff. The Indian Supreme Court has observed that the absence of technically competent leadership undermines the requirements of good governance.[24] The legislative and executive apathy towards regulatory incapacity is evident from a glance at the basic data. Ghosh notes that the Central Pollution Control Board has nearly 20 per cent of its sanctioned posts lying vacant as per its last annual report, and at least one State Pollution Control Board (the State of Karnataka) has 51 per cent of its posts unfilled. And the staff who are hired have a disproportionately high number of administrative members with no technical expertise, resulting in the paralysis of core functions.

The Indian state suffers from high levels of vacancies across all its organs, from the judiciary to the police and from the military to academic positions in universities. While the lack of competent personnel with adequate skills might be one explanation for senior-level appointments, it is belied by the fact that even local bureaucracies suffer from high numbers of vacancies. It is likely that politicians tend to underinvest in state capacity (staffing and training) because the electoral returns to these investments are diffuse and uncertain in contrast to the strong incentives to announce and inaugurate new and ambitious projects and programmes.[25] And there are, of course, questions relating to resource constrains. But there is another – and less generous – explanation, namely that understaffing is a deliberate strategy to enfeeble the regulators. However, while this might explain why the parent ministry might drag

[22] See James D Fearon, 'Domestic Political Audiences and the Escalation of International Disputes' (1994) 88 *American Political Science Review* 577.

[23] The problem of weak state capacity afflicts India's public institutions more generally and hence it is not surprising that this afflicts regulatory institutions as well. See Devesh Kapur, Pratap Bhanu Mehta and Milan Vaishnav (eds), *Rethinking Public Institutions in India* (Oxford University Press, 2017).

[24] See *Techi Tagi Tara v Rajendra Bhandari*, 2017 SCC OnLine SC 1165.

[25] Devesh Kapur and Aditya Dasgupta, 'The Political Economy of Bureaucratic Effectiveness: Evidence from Local Rural Development Officials in India' (draft on file with the authors).

its feet in selecting the members of the regulatory commissions, the hiring of staff is endogenous to the regulatory commission themselves.

Regulatory incapacity also chokes the process of standard-setting, which is critical to any domain where transgressions are measured and penalised based on scientific parameters. Over a range of industries, emission standards for severe pollutants are left underdetermined or, when determined, substantially higher than global standards, with little explanation for this variance. As Ghosh observes, source-based standards are problematic because they do not consider the capacity of the receptor – that is, the water body or local air – to absorb the effluents or emissions from multiple sources, even if the discharge from each individual source may be within legal limits. The absence of scientific capacity has doubtless contributed to a situation where the boards spend considerable efforts on licensing industries, much less on monitoring compliance with licence conditions, and perhaps least on developing and fixing standards. Is that a deliberate trade-off to encourage faster industrialisation at the cost of environmental protections, which was certainly the case in most countries at India's level of development? If so, it does not seem to have even served that goal.

In Vikramaditya Khanna's chapter on the regulation of food standards and safety, we are offered a disconcertingly similar narrative. Examining the Food Safety and Standards Authority of India (FSSAI), he divides its decision-making into two phases: pre-2015 and post-2015. The pre-2015 procedure involved product approvals for several commodities in respect of which standards were yet to be framed. Because the requisite capacity for scientific testing was not yet in place to consider these approval requests and scientific panels were over-stretched, the FSSAI started granting no objection certificates (NOCs) for products. These NOCs allowed products to be on the market for up to a year while awaiting panel decisions. It is only after 2015 – that is, after the Bombay High Court held this NOC procedure to be beyond the remit of the FSSAI's powers – that this regulatory authority started taking the standard-setting process more seriously.[26] But capacity deficiencies have stymied the process, resulting in a rather liberal importation of global standards and a reliance on industry players to help develop standards, train personnel and disseminate information on food safety more widely to the public. Khanna worries that the attempt at attenuating capacity gaps through reliance on external regulatory processes risks compromising fairness and neutrality in the decision-making process. A counter-argument – which we examine later – is that relying on an external 'anchor' could bolster the domestic regulator, not just by filling capacity gaps but also by staving off political pressures.

Moreover, the FSSAI has had a chequered track record of overriding scientific panels and taking important decisions without a clear scientific basis, partly due to its severe staffing limitations and excessive dependence on contractual staff. A Comptroller and Auditor General (CAG) report points out even a single qualified food analyst is not present in 15 of the 16 notified food laboratories, and quantifies a

[26] See *Vital Nutraceuticals Private Ltd v Union of India*, 2014 SCC OnLine Bom 165.

90 per cent shortfall of sanctioned food safety officers in 12 states.[27] Khanna reiterates the observations in this report that the FSSAI had no clear oversight procedures for evaluating lab performance, with many such labs running without the requisite testing facilities for pesticide residues, heavy metals and certain toxic substances. He argues that matters are only worsened by the enormous scale of regulatory activity expected from the FSSAI. Drawing parallels with China, he notes that regulators there have struggled to grapple with the local food diversity that makes standardisation difficult, and the massive production system, geographical size and number of market players that render monitoring and enforcement a gigantic task.[28] While self-regulation has its limitations, and it is unlikely that it can be a substitute for the scientific and technical capacity of regulatory bodies, given the challenges of regulating a large number of actors in large federal systems in terms of scale externalities and multi-level coordination challenges, there might be little alternative until state capacity is much more robust.

Neel Maitra examines the relationship between scale and regulatory efficacy in the context of a market that falls at the other end of the consolidation/concentration spectrum: the securities market. In his view, the Indian securities regulator – the Securities and Exchange Board of India (SEBI) – started with an easier task than some other regulators when it came to regulating stock exchanges. Limiting his study to members (and not all entities that issue securities), he unpacks a scenario where self-regulation works quite efficiently in India without the need for the regulator to make massive investments in internal capacity building. He argues that part of the reason for this are the early legislative choices, such as mandating that security trading can only take place over centrally recognised stock exchanges, and the placing of a premium on investor protection and transparency over competing market regulatory goals of efficient or liquid markets. But another important part is the regulator's own initiative in nudging the regulated market towards more standardisation and consolidation over time. SEBI has managed to achieve this through exercise of its delegated powers to recognise and de-recognise stock exchanges. Consequently, SEBI has been able to concentrate its regulatory capacity on a steadily decreasing number of recognised exchanges.

SEBI has also made full use of the legal embargo on trading elsewhere to orchestrate a virtuous cycle where entry barriers for new exchanges are kept high, and compliance and reporting norms for existing ones are stringent, leading exchanges to vigorously self-regulate and keep their members under check. Members too feel the heat of market non-participation in the event of de-listing or other sanctions imposed by exchanges, thus securing compliance with the self-regulatory regime. Drawing comparisons with the market structure in the US, he argues that the presence of alternative trading systems (ATSs) there alongside the securities exchanges undercuts the efficacy of self-regulation by exchanges. The cost of breach is never

[27] Comptroller and Auditor General of India, *Report on Performance Audit of Implementation of Food Safety and Standards Act, 2006* (Government of India, 2017).

[28] On the difficulties of food regulation in China, see John Yasuda, *On Feeding the Masses: An Anatomy of Regulatory Failure in China* (Cambridge University Press, 2017).

too expensive, as errant members can always move to trading in these ATSs. In India, SEBI has even minimised the possibility of regulatory arbitrage through member shift from one exchange to the other – the exchange market is effectively a duopoly now as two other exchanges are in exit stage – by pushing for identical or near-identical rules using its rule-making oversight. It has further tightened arbitrage, and promoted self-regulatory success, by making it difficult to switch from one business to another, such as from trading to investment advice. Maitra's major insight is therefore that SEBI has managed a striking degree of regulatory capacity by 'effectively delegating the regulation of market intermediaries to recognised stock exchanges, and has ensured that such regulation is effective by preserving the market power of these recognised exchanges'.

SEBI does, to be sure, have capacity-related concerns. As Umakanth Varottil highlights, SEBI fares better on the sanctioned strength versus occupied posts metric. But the growth in its sanctioned strength over a decade does not reflect the greater than sixfold growth in equity markets. Even from a qualitative perspective, he argues that the regulator's enforcement wing lacks the requisite skills and expertise to grapple with sophisticated market evolution, leading to a preference for blunt enforcement tools over more proportionate and nuanced responses.

In 2017, the US had 3,616 publicly listed companies, while 5,818 companies were listed on the Bombay Stock Exchange (BSE). As of March 2017, the US securities market watchdog, the Securities Exchange Commission (SEC), had 4,554 employees, while SEBI had 780. Thus, each listed company in the US was monitored by 1.26 SEC employees on average. In contrast, 780 SEBI employees were monitoring 5,818 listed companies in India, equating to each company being monitored by 0.13 employees – an order of magnitude difference. In key divisions, such as corporate finance, the SEC has more than 15 times as many employees as SEBI. This does not even control for personnel quality.[29] It should be emphasised that there are options to augment limited internal capacity, including outsourcing and crowd-sourcing data that is not sensitive, or instituting a strong whistleblower programme, with a reward correlated to the money collected from enforcements above a certain threshold.

Nonetheless, Maitra's comparisons between SEBI and the SEC in the US, and SEBI vis-a-vis other Indian regulators, presents a reasonably positive narrative on regulatory capacity and offers significant guidance on lessening the regulatory load while not compromising on the quality or efficacy of self-regulation. But there are two additional reasons why SEBI has been a more effective regulator. For one thing, its parent ministry – the Ministry of Finance – is itself widely acknowledged to have the most competent personnel across all departments. Additionally, India's need to attract foreign capital meant that the Ministry of Finance had a strong incentive to ensure that the regulator's effectiveness was not unduly compromised. However, these lessons cannot be easily extended to other situations, as Maitra himself acknowledges. Indeed, it is difficult to even stretch it to some of the other

[29] Krishnamurthy Subramanian, 'Building Regulatory Capacity in SEBI' *LiveMint* (3 September 2018), https://www.livemint.com/Opinion/JvxJZxGnegFSWS9jb6pIKP/Building-regulatory-capacity-in-Sebi.html.

functions discharged by SEBI. A good reason for this inability arises from another important and common concern with the Indian regulatory state: that of regulatory independence.

III. REGULATORY INDEPENDENCE AND DESIGN

Independence almost invariably has two dimensions to it: de jure and de facto. While regulatory design – such as ambiguity in the regulator's underlying statutes – can make it easier for the executive to override the regulator and compromise functional independence in a real sense, independence can be affected by another affliction of regulation and regulators, namely jurisdictional overlap and turf wars. An incessant need for a regulator to assert its jurisdictional legitimacy can easily undermine its public perception as an independent body. Both are detrimental for the regulator, albeit in different ways. Varottil's chapter provides interesting insights into the regulatory turf wars that presumably affect SEBI's ability to discharge its functions, as well as its public perception as an independent regulatory institution that can take firm decisions. SEBI has had to fight domain battles for years with the Ministry of Corporate Affairs (MCA), though it falls within the administrative oversight of the Ministry of Finance. The demarcation of powers, where SEBI administers those provisions of the Companies Act, 1956 relating to the issue and transfer of securities, has not been an exacting one. The *Sahara* case, where unlisted entities issued securities to thousands of investors by sidelining SEBI and filing paperwork with the Registrar of Companies (under the MCA), is a particularly egregious example of such a conflict.[30] The battle over who gets to set corporate governance norms in India also entails domain assertions from SEBI and MCA, with the latter winning in recent years.

Varottil also details turf wars between SEBI and other regulators such as the Reserve Bank of India (RBI) and the Insurance Regulatory and Development Authority, which lead to weakening public perception over workings of the overall financial regulatory structure. While his study is measured, seeing some episodes as having to do less with conflict and more with a lack of effective coordination, the real difficulty has been in creating institutional frameworks that resolve such coordination failures and strengthen the regulatory environment. For instance, the Financial Stability Development Council, established in 2010 to institutionalise and strengthen inter-regulatory coordination mechanisms, has not received much impetus. Subsequently, in 2013, the Financial Sector Legislative Reforms Commission recommended creating a unified regulator (to be called the Unified Financial Agency (UFA)) by merging the securities, insurance, pension, and forward markets regulators into the UFA.

Worldwide, countries have been grappling with financial sector regulation, given the frequency and virulence of financial crises. Disintermediation of the financial

[30] *Sahara India Real Estate Corporation Ltd v Securities and Exchange Board of India* (2012) 10 SCC 603.

sector has led to hybrid financial instruments that combine features of banking, insurance and capital markets. An overarching financial regulator appears attractive because regulated entities can (and do) take advantage of such fragmentation and engage in regulatory arbitrage, and, as Varottil argues, because fragmentation in regulating financial markets potentially causes uncertainties for market players. But super-regulators can also concentrate risk instead of spreading it across regulators. However, while both fragmented and consolidated regulatory authority have their merits and demerits, weak coordination is, in any case, a regulatory failure that impinges upon the overall independence of individual regulators as well as the regulatory system as a whole.

Another important design failure lies in the absence of proper consultative procedures that inspire faith in the regulator's accountability towards citizens and other stakeholders. In the case of SEBI, public consultations do exist, although questions remain as to how it deliberates upon the information gathered from such consultations. For instance, in 2018, SEBI's move to ban entities owned by people of Indian origin from operating as foreign portfolio investors backfired. While the intentions were sound – it was aimed at stamping out the practice of 'round-tripping', whereby India citizens had used relatives abroad to launder money and make investments in India while concealing their wealth from the authorities – it backfired when the magnitude of its effects became apparent. More troubling, as one observer noted, 'India is the only place I've seen where they announce rules without any discussion with the industry'.[31] With the regulation of other domains, such as in the air and water pollution scenario studied by Ghosh or the banking sector examined by Suyash Rai, there are no consultation requirements in place at all, resulting in decisions that are taken without stakeholder engagement even though they carry major consequences for the affected parties.

If the financial sector illustrates the challenges of horizontal coordination and turf wars among regulators, the power sector highlights the challenges of vertical coordination in India's federal system between the central and state governments. These federalism-related challenges are addressed in Akshay Jaitly's chapter on renewable energy. This sub-sector was targeted for differential and favourable regulatory treatment within the broader ambit of the Electricity Act, 2003. But, as Jaitly demonstrates, while these favourable policies have undoubtedly boosted the sector, interventions by state governments have significantly undermined the central government's vision. Jaitly also underlines the problem with misaligned objectives at the central level – that is, between the ministries of power, new and renewable energy, and finance that have different priorities – resulting in early benefits, such as accelerated depreciation and generation-based incentives being pulled back, re-introduced and again rolled back, thus sending conflicting messages to stakeholders as well as regulators. India's conflicting goals to procure cheap solar equipment on the one hand, while boosting a domestic manufacturing base through imposition of import duties

[31] At the time, it was estimated that of the $450 billion of foreign portfolio investment into India, $75 billion was funds managed by Indian origin investors. Simon Mundy, 'Indian Regulators Warned over Foreign Investor Plan' *Financial Times* (4 September 2018).

on the other, and simultaneously wanting to keep the lowest possible prices for power to help indebted and loss-making state-owned power distribution companies keep costs down is an impossible trinity.

States have sidestepped the feed-in tariff fixation system, which is meant to sufficiently incentivise renewable energy deployment by assuring attractive tariffs for power producers, in favour of competitive bidding that keeps tariffs low, in order to benefit their distribution companies and consumers. The implications of such low tariffs for the long-term sustainability of underlying projects and the overall growth of the sector seem reasonably clear. Moreover, falling tariffs have led to distribution companies unilaterally renegotiating or terminating their existing contractual arrangements with renewable energy generators. This, in turn, has resulted in a conflict between the Appellate Tribunal for Electricity (APTEL), which has held that a power purchase agreement can only be re-opened to provide thrust to renewable energy projects, and the State Electricity Regulatory Commissions (SERCs), that have largely weighed in favour of state-owned distribution companies. The issue points to the reality that problems in regulation might be rooted in underlying difficulties elsewhere, in this case the larger problem of contract enforcement in India.[32]

Similarly, renewable purchase obligations (RPOs) that were introduced to drive up demand for renewables have not been obeyed in letter or in spirit by the SERCs. The minimum targets set by SERCs for 'obligated entities' to fulfil, as part of their total energy purchase, have been typically lower than the recommended targets set by central government entities. SERCs have also ignored verdicts by APTEL and the Supreme Court, and either refrained from penalising or imposed paltry fines on state-owned distribution companies that fail to meet RPO targets. Jaitly concludes that these misalignments between state and central government actors, and within the central government itself, will likely get in the way of the sector's capability to attract the investments necessary for meeting India's nationally determined commitments under the Paris Climate Change Agreement.

The power sector exemplifies the challenges of regulatory independence in situations where the state, through its public enterprises, is a player in the sector under consideration. This leads to a scenario where a different set of norms are made applicable to the public entities, or one where even if the norms were the same, they are partially applied by the regulator due to pressures on its functioning. Banking is a classic instance of the former, while infrastructure and renewable energy exemplify the latter. Both jeopardise the 'level playing field' assertions behind India's transition from a licensed business regime to a regulatory state, with immensely detrimental consequences that are playing out even at present.

Suyash Rai's study of the banking regulatory system dives straight into the concern that occupies most observers of the banking system in India today. How

[32] According to the World Bank's 'Ease of Doing Business Indicators', the time taken to enforce a contract in India (in 2017) was 1,445 days, which was longer than it was 15 years ago (1,420 days), placing the country in 164th place in the global ranking on the Enforcing Contracts indicator. See http://www.doingbusiness.org/en/rankings.

did financial frauds and excesses in the public banking system go unnoticed for such a long time, only to suddenly appear with the flight and failure of high-net-worth individuals? Why did the RBI never intervene in a meaningful enough way and perform its task as a regulator? The answer, as Rai points out, is that even though public sector banks (PSBs) hold 68 per cent of the total deposits in the formal banking system, the RBI's regulatory powers are circumscribed, especially its ability to impose significant penalties on errant PSBs. When the Finance Minister disputed this, claiming that 'in the Indian system, we politicians are accountable, the regulators are not', the RBI Governor responded that 'the RBI's legal powers to supervise and regulate PSBs are also constrained. It cannot remove PSBs Directors or management who area appointed by the government of India, nor can it force a merger or trigger the liquidation of a PSB'.[33] It has, at best, some recommendatory powers against errant senior officials at these banks and participation through its nominees in their boards. Thus, the law provides for some minimal oversight by the RBI over the functioning of PSBs, with its primary task being confined to regulating private and cooperative banks.

The origins of this divided regulatory authority within the same sector go back to 1969, when then Prime Minister Indira Gandhi's government nationalised 14 private banks and concentrated the banking sector in the hands of PSBs. While policy priorities at the time of nationalisation or even a couple of decades later directed lending to the agriculture sector and other underserved sectors, the post-liberalisation exercise of this authority has largely benefited players in the infrastructure sector, with PSBs being compelled to grant loans to complex projects that they had little prior experience of dealing with. This was exacerbated by regulatory forbearance towards politically connected businesses. As Rai argues, excessive governmental control in the financial decision-making process, coupled with an alignment of political incentives that block any transition towards substantive regulatory oversight, have resulted in a moral hazard problem.

Until the passage of the Insolvency and Bankruptcy Code, 2016, the instruments of resolution and liquidation of poorly performing PSBs were vested with the Government of India and not the RBI, and there had not been a single exercise of this power. Instead, a vicious cycle had ensued in which poor performers were periodically recapitalised by governments willing to absorb their losses, leading the public to believe in the infallibility of the public banking system. Failures recur because PSBs have no real incentive to mend their practices, as they do not bear the massive adverse consequences of their actions. The public faith in PSBs, despite the abysmal track record of many of them, is rational given the record of bailouts, and spills over into the growth and competitiveness of the more regulated private banking system as they cannot boast of such assured bailouts. Faced with this reality where there is no run on the bank to justify regulatory intervention in the first place, the RBI has largely

[33] News Report, 'RBI's Regulatory Powers over PSBs are Weaker Than Those over Private Sector Banks: Urjit Patel', *Economic Times* (15 March 2018), https://economictimes.indiatimes.com/industry/banking/finance/banking/urjit-patel-opens-up-on-pnb-says-no-regulator-can-prevent-fraud/articleshow/63302101.cms.

refrained from intervening. It has sparingly exercised its power through members on PSB boards to adopt more prudent practices, as taking such an approach would place it in conflict with the government and its policy – or more likely its political – priorities. India's new insolvency and bankruptcy law appears to finally provide real powers to regulators to rein in the looting by big business. The RBI has leveraged the new law to force the hand of the PSBs to launch insolvency proceedings against major corporate defaulters, but its full impact remains to be seen.

The big beneficiary of PSB lending – the infrastructure sector – also faces issues of regulatory interference due to pernicious political pressures. As Amit Kapur outlines in his chapter, the pressures here fit broadly into two categories: preference for state-owned enterprises (SOEs) and undermining regulatory independence to suit the same, and the dilution of rule-based decision-making and disregard for contractual arrangements for political gains, such as providing free electricity and other 'welfare' measures. Kapur shows that the roots of the problem are somewhat like those in banking, where, until the early 1990s, the sector was heavily dominated by SOEs. Post-liberalisation, policy priorities shifted, pushing for vertically integrated SOEs (especially in the electricity sector) to be unbundled and corporatised into distinct functional entities, and for introducing competition into most segments of the value chain. But the actual realisation of these goals demands regulatory frameworks that guarantee and maintain a level playing field between new players and the dominant SOEs. Unfortunately, this has not happened to the requisite extent, despite the institutional presence of sector-specific regulators seemingly having the same kind of authority over both private players and SOEs.

Kapur points out that many of the sector-specific regulators are administratively located within and financially provided for by the concerned ministry, which also owns and controls the regulated SOEs. In addition, these regulators depend on the relevant ministry for staffing, often contractually engaging personnel from the regulated SOEs themselves. Completing the picture of dependence on the executive and non-separation from the regulated SOE is the fact that budgetary allocations are made from the ministry, with extensive reporting requirements placed on the regulator. In this scenario, it is evident to the regulated SOE as to where the real seat of authority lies: the ministry rather than the regulator. Therefore, when choosing between the regulator's verdict and conflicting policy directives from the ministry, SOEs ignore the former, diminishing market confidence in the regulator.

To demonstrate this point, Kapur uses the case study of open access, where independent power producers were legally entitled to access the publicly owned grid infrastructure and sell power generated at their end. The state transmission utility unilaterally chose to block such open access, and state governments acted in the 'public interest' to sequester the power thus generated to be sold to their utilities at a prescribed price. In effect, shortfalls due to deficiencies in the state distribution system were sought to be transferred to the private power generators by violating a legally guaranteed regulatory principle. Though the Central Electricity Regulatory Commission stepped in to secure the continuance of open access, its verdict was overturned by the Karnataka High Court, appeals against which decision have now been pending before the Supreme Court for the past seven years. Moreover, as Jaitly points out in his chapter, SERCs may have allied in principle with open access obligations, but have not fulfilled their mandate to reduce the cross-subsidy surcharge, which is a significant financial disincentive for consumers to opt for open access.

Similarly, Kapur argues that 'public interest' and welfare objectives have been used as a ruse to both overturn contractual commitments and limit pricing autonomy in infrastructure – where ex ante certainty is critical due to the long-gestation investments that investors need to make, and some assurance of viable returns over a long timeframe are needed to attract private competition in the first place. Regulators have not been proactive in taking prompt action against backtracking in relation to contractual commitments, including non-payment or delayed part-payment of tariffs, dues and carrying costs. Even legal provisions such as those in the Electricity Act, 2003, which aimed to give some pricing flexibility and to ensure that private players do not suffer the brunt of unsound subsidies granted due to political pressures, have been ignored by some state governments, with no respite from regulators to tackle these direct inroads into project viability. Like Jaitly, Kapur also concludes that the problems that the sector currently faces – namely, those relating to stressed assets and twin balance sheet woes – are unlikely to be easily cured without a better climate for investment, which in turn is hard to achieve given the current regulatory realities.

IV. NEW TECHNOLOGIES AND DATED REGULATORY FRAMEWORKS

One of the most demanding challenges facing regulatory design is how to deal with new technologies, especially disruptive technologies that upend the assumptions that informed prior regulatory design. It poses difficult questions not only on what or how to regulate, but crucially on who will regulate, provoking turf wars, as Rahul Matthan's chapter on telecommunications regulation illustrates. Technological change in this area has been so rapid that turf wars have been an endemic feature. The TRAI was created as an independent sector specific regulator in furtherance of India's international obligations as well as a Supreme Court directive. But the Department of Telecommunications (DoT) has enjoyed overriding powers over its decisions. As a result, over time, the TRAI was reduced to an expert recommendatory body on most cases other than those involving interconnection and tariff, where it can lay down rules that do not conflict with the operator licences issued by the DoT. On several occasions, and most notably with the controversial 2G spectrum allocation in 2008, TRAI decisions have been rejected or stalled by the DoT and have stymied the regulatory agenda.[34] In addition to departmental pressures, the TRAI's adjudicatory powers have been transferred wholesale to the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) and it now faces further regulatory turf battles with the Competition Commission of India (CCI) over the issue of predatory pricing in the sector. In short, the TRAI is a specialised regulatory authority with reasonable

[34] The 2G spectrum allocation exploded as one of the most egregious corruption scandals in India, forcing the Supreme Court to step in and deliver several orders in relation to this issue. See *Centre for Public Interest Litigation v Union of India* (2012) 3 SCC 1; *Subramanian Swamy v Manmohan Singh* (2012) 3 SCC 64; *In Re Allocation of Natural Resources, Special Reference 1 of 2012* (2012) 10 SCC 1.

capacity but limited ultimate authority. However, despite this, the sector has grown explosively.

Matthan explains this puzzle by taking us through three objectives that have guided telecom regulations. These objectives – coverage and penetration, revenue maximisation, and national security – have been instrumental in shaping crucial policy decisions. The centrality of these objectives in creating and shaping a vibrant market where none existed emerges quite clearly from his discussion of decisions that have been taken by the DoT, with the first objective having been particularly influential. Early on, a cap was imposed on the number of operators in each circle to ensure that all of them did not gravitate to the more lucrative metropolitan areas. After ensuring the presence of operators in every circle, policy instruments subsequently aimed at maximising coverage within these circles. Positive measures to permit the sharing of passive telecom infrastructure also helped to lower entry barriers for new players. These steps deepened coverage and penetration with mobile subscribers increasing a hundredfold, from about 10 million in 2002 to 1.2 billion in 2018.

However, as Matthan notes, the current framework of departmentally driven regulation with clarity on the key regulatory objectives and little public consultation in the decision-making process, and a near-sidelining of the 'independent regulator' may have just about served its time. Today, the telecom sector's demands have changed as technological disruption is rife in this area. New technologies impact citizens differently without lending themselves to the triple-objective framing that has seen the sector grow from nothing to one that has among the lowest costs and second-largest subscriber base in the world. They also demand updating legal frameworks – the sector is, remarkably, still governed through an anachronistic enactment, the Indian Telegraph Act, 1885 – rather than governance through telecom service provider licences. Technological convergence – over voice and video, wireless and broadband – data protection and privacy, and emerging monopolies all even more require the TRAI's expertise and effective public consultation systems in not only recommending innovative frameworks but also putting them in place without further policy paralysis. The need for an independent regulator in the real sense of this term stands out ever more than in the past.

Rai's study of banking regulation offers the same observations regarding new technologies in the finance sector and the RBI's regulatory incapacity in playing catch up. He points out that technology can present the banking sector with five different kinds of scenarios – 'better bank', 'new bank', 'distributed bank', 'relegated bank' and 'dis-intermediated bank' – with policy and regulatory decisions influencing which scenario would dominate the sector's future in India. In such situations, the RBI will have to re-align its focus from the regulated entity's form to its actual functions, and develop mechanisms such as regulatory sandboxes to co-develop regulations for innovative business models. However, in order for this regulatory transition to be handled well, the organisation will have to be more open and consultative.

Inadequate attention to institutional design and independence is currently the situation when one considers the regulation of another technologically powered resource that is increasingly critical to national progress and economic growth: data. Ananth Padmanabhan and Anirudh Rastogi examine the rise of big data solutions and the startling inadequacy of India's legal and regulatory landscape to address this issue.

The Information Technology (IT) Act, 2000 – the applicable overarching legislation in operation in India – was enacted at a time when data storage was perceived to be vulnerable to attack, and the subsequent IT Rules, 2011, relating to sensitive personal data or information, added a few layers of protection in the light of increased data gathering. But Padmanabhan and Rastogi argue that the point of threat to individual and group rights has increasingly shifted from data gathering to data processing. The deep learning solutions of today are quite capable of profiling individuals and groups in extremely granular ways, and of re-identifying personal information and individuals even where the original dataset is bereft of personal details. No clear substantive safeguards against such practices, or robust regulatory mechanisms to mitigate these harms to individual and social rights, exist in India. The segregation of data security and these new kinds of challenges into separate policy silos is again unhelpful and out of sync with the reality of present-day threats.

Tracing the reason for these structural lapses to the relatively new recognition of informational privacy as a fundamental right in India – it was only in 2017 that a nine-judge bench of the Supreme Court of India unanimously held so – the authors build the case for stronger data governance principles and procedures going forward.[35] Drawing on recent government reports, they argue that protecting privacy is not only a matter of tightening consent notifications or differential treatment of sensitive personal data, but also about higher digital literacy and educating Indian users on the threats and consequences of data leaks and unlawful data processing. New notice requirements must be envisioned that serve this broader purpose, including the use of visual media, vernacular languages and simple writing. The authors argue that the end goal should be to nudge data controllers to introduce privacy-by-design and other data-respecting technologies, and strong internal procedures, rather than rely on an extensive state regulatory system. Their views seem to resonate with Khanna's on food regulation, where the scale of operations is too diverse and spread out – often happening behind 'closed doors' and in 'black boxes' – to make regulation meaningful or effective.

However, one area where Padmanabhan and Rastogi advocate higher regulatory independence and stronger frameworks is the use of big data solutions for public purposes. Using Aadhaar – India's biometric identity project – as a pivot for this discussion, they demonstrate how the Unique Identification Authority of India (UIDAI) serves as both the data custodian and regulator of this database, leading to a complete misalignment of incentives. As a regulator, it has no effective voice in deciding the public services for which the database would be used, while as custodian, it has no serious incentives to disclose the occurrence of a breach, despite the Aadhaar Act, 2016 vesting rights with the UIDAI, not the citizen, to be notified of data breaches and then decide how best to proceed. Similar flaws exist with the mass surveillance possibilities in this project and the oversight mechanisms for safeguarding against such possibilities. The authors anticipate these issues to worsen as big data solutions and algorithmic decision-making find increasing application in policy-making, the

[35] On the Indian Supreme Court's recognition of the right to privacy, see *KS Puttaswamy v Union of India* (2017) 10 SCC 1.

allocation of public resources, and the delivery of public goods and services. Without strong regulations and better-designed regulatory institutions that separate functions from the nodal ministries, discrimination harms against individuals and groups are likely to proliferate and remain unaddressed.

It is worth noting that one issue in this regard is relatively unaddressed. The proliferation of fake news and violence that undermine social trust and democracy, fuelled by the new social media technologies, are raising thorny issues of who – and how – this should be regulated.[36] The real puzzle here is how to regulate the systemic power of 'Big Tech' that is based on platform technologies. Big Tech straddles multiple markets (communications, media and, advertising) and, in terms of size, market impact and interconnectedness, it has become so embedded in everyday life that it is simply not easily substitutable. When antitrust regulation was introduced in the West, one important goal was to ensure that the economic power of large companies did not result in the corruption of the political process. For much of the twentieth century, antitrust policy was predicated on the welfare of the citizen. But, over time, emphasis began to be placed on business efficiency, which from the 1980s onwards came to be measured in consumer prices, a shift that clearly served the neoliberal politics of the time. However, such an understanding is increasingly questionable at a time when Big Tech offers products and services for 'free' in exchange for personal data. While there is increasing agreement that government intervention in Big Tech is needed, there is little consensus on who (that is, which institutions) should perform this regulation, about the trade-offs between innovation and regulation, privacy and free flows of data, and curbing manipulation and protecting free speech. Any solution to the problems of Big Tech will require innovation as well as regulation. This could include substantially larger fines (akin to the $2.7 billion fine on Google imposed by the European Union for manipulating its search engine results in order to favour its own shopping service) to insisting that individuals retain ownership rights of all the digital connections that they create.[37]

V. INTERNATIONAL REGULATION AS A DOMESTIC POLICY ANCHOR

As firms and markets globalise, regulation might be expected to follow suit. The integration of product and financial markets has internationalised these problems and has led to a shift from local and domestic to international standard-setting. Global agreements, institutionalised in intergovernmental organisations such as the International Monetary Fund, the Bank for International Settlements and the World Trade Organization, have further boosted the spread and power of international standards.[38] International regulatory standards then become instruments of

[36] For a recent intervention in the debate on social media and democratic values, see Cass R Sunstein, *#Republic: Divided Democracy in the Age of Social Media* (Princeton University Press, 2018).

[37] For the EU verdict, see EU Commission Decision, *Google Search (Shopping)*, Case AT.39740, 27 June 2017, http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf.

[38] David Andrew Singer, *Regulating Capital: Setting Standards for the International Financial System* (Cornell University Press, 2007); Tim Buthe, 'The Globalization of Health and Safety Standards: Delegation of Regulatory Authority in the SPS Agreement of the 1994 Agreement Establishing the World Trade Organization' (2008) 71 *Law and Contemporary Problems* 219.

governance, acting either as norms or as government regulations, especially when incorporated into laws and regulations. There are several reasons why businesses and governments may adopt a particular standard. It might provide a superior solution to a technical problem; network externalities can create economic incentives for implementing a standard; information asymmetries in the market can create economic incentives for businesses to adopt standards; political-legal incentives or social pressure from third parties may induce government and firms to comply with standards that are seen as embodying 'best practice'; or compliance might be required by laws or regulations. Only the last is shaped by the power of business in lobbying governments.

Starting in the 1980s, divergent national standards became one of the most important non-tariff barriers to trade and, in the 1990s, a prominent barrier to the international integration of financial markets. Until the 1980s, there were only a few areas where standards had come into global use through intergovernmental organisations, such as the Codex Alimentarius Commission (a joint body of the UN Food and Agriculture Organization and the World Health Organization (WHO)), which had developed some food safety standards, and the International Telecommunications Union (ITU), which governed radio frequencies and standardised (some aspects of) related technologies. Today, the overwhelming majority of new standards for product and financial markets are developed in the expert committees of international (or sometimes regional) standard-setting bodies.

Most standards come from non-market private bodies, often international non-governmental organisations that have the backing of governments, but with the strong participation of market actors. Two prominent bodies of this type are the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), which jointly account for about 80 per cent of all international product standards. These two organisations have become prominent in part due to the Agreement on Technical Barriers to Trade, negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). It obliges all WTO member states to use international standards as the technical basis of domestic laws and regulations whenever international standards exist.[39]

Another area where global standard-making bodies heavily intrude into domestic regulatory processes is finance.[40] Thus, the Basel Committee on Banking Supervision – which develops global regulatory standards for banks and seeks to strengthen micro- and macro-prudential supervision – sets standards on capital adequacy of banks and liquidity coverage. With India represented on this forum by the RBI, these standards have found their way into Indian banking regulations. The International Organization of Securities Commissions (IOSCO) – a forum for the world's securities regulators that sets global standards for the securities sector – makes periodic assessments reports on Indian securities markets. India is represented through SEBI

[39] See Tim Buthe and Walter Mattli, 'International Standards and Standard Setting Bodies' in David Coen, Wyn Grant and Graham Wilson (eds), *The Oxford Handbook of Business and Government* (Oxford University Press, 2012) 440.

[40] Singer (n 38).

on its various policy committees and the standards that come out of these find their way into SEBI's regulatory practices.

Another salient private global regulator is the International Accounting Standards Board (IASB), which sets global accounting standards on corporate financial reporting. But accounting standards are not neutral. Accounting principles in Europe prioritised 'prudence' (emphasising judgement to avoid overstating capital or income), while the US system prioritised 'neutrality' (or the 'absence from bias') to facilitate trading in securities markets. Accounting standards affect how costly it is for a company to raise capital, the incentives to invest in research and development, and how it calculates risks (and thereby what risks it takes). For an emerging market like India, the adoption of global accounting standards by Indian firms affects their ability to raise capital in global markets or the possibility of Mumbai emerging as a global financial centre. While India has not adopted International Financial Reporting Standards in toto, it has developed Indian Accounting Standards (Ind AS) that are based on and substantially converged with International Financial Reporting Standards as issued by the IASB.[41]

An even more important role of international regulation is the de facto outsourcing of regulation. For instance, even as the airline industry in India expanded rapidly, the regulator – the Directorate General of Civil Aviation (DGCA) – was lackadaisical in discharging its responsibilities. But airline safety is an international issue since foreign airlines fly into India and Indian carriers fly into other countries. In 2012, a safety audit by the United Nations (UN) body, the International Civil Aviation Organization (ICAO), raised safety concerns about India's aviation system ranking India as the world's thirteenth-worst performer in safety. In 2014, the US Federal Aviation Administration downgraded India to Category 2 from Category 1, which effectively prevented Indian carriers from adding flights to the US or entering into any new code-share agreements for a year. This compelled the DGCA to align most of its rules (known as civil aviation requirements (CAR)) with the ICAO norms. The external regulators had highlighted the paucity of crucial personnel for flight operation inspectors and air traffic services, prompting the DGCA to hire the required flight operation inspectors in record time.[42] External regulation forced changes that the internal regulator was either unwilling or unable to do on its own accord.

A similar process has unfolded in the regulation of the food and pharmaceuticals industries. In the case of the former, Khanna's chapter demonstrates how India's food safety regulator (the FSSAI) set about standardising around 12,000 food items in

[41] Devesh Kapur, 'India and International Financial Institutions and Arrangements' in Waheguru Pal Singh Sidhu, Pratap Bhanu Mehta and Bruce D Jones (eds), *Shaping the Emerging World: India and the Multilateral Order* (Brookings Institution, 2013) 237.

[42] It did so by making the posts of flight operation inspectors attractive for experienced pilots and offering them a market-linked salary and 'managed to get the approval of the Finance Ministry within three days'. Tarun Shukla, 'ICAO Set to Audit India's Air Safety in November' *LiveMint* (10 January 2017), https://www.livemint.com/Politics/caywvFVaeGIwIJbgNQlfAJ/ICAO-set-to-audit-Indias-air-safety-in-November.html. See also Somesh Jha, 'DGCA Braces for ICAO Safety Audit' *The Hindu* (18 July 2017), https://www.thehindu.com/news/national/dgca-braces-for-icao-safety-audit/article19303296.ece.

harmonisation with globally recognised standards on food and food safety maintained by the Codex Aliementarius Commission (CAC). Similarly, the Global Food Safety Partnership (GFSP) – a public-private partnership established in 2012, which brings together governments, industry, multilateral organisations and other stakeholders promoting global cooperation for food safety capacity building in support of stronger food safety systems – has been working with the FSSAI in strengthening food safety standards and regulations.

Since the mid-2000s, the US has become a key market for Indian pharmaceutical firms, with about a third of its total sales coming from the US market. India's exports have almost doubled, from $8.7 billion in 2008–09 to $16.88 billion in 2016–17. Indian companies account for 40 per cent of the generic sales in that market.[43] India now has more than 600 US Food and Drug Administration (FDA)-approved facilities, the largest number of such manufacturing facilities outside that country, and Indian pharma firms received 301 US FDA generic drug approvals in 2017 (up from 177 in 2015).

Given the volume of generic drugs the US began importing, the US passed a Generic Drug User Fee Act (GDUFA) that made it compulsory for manufacturers of generic prescription drugs to pay a fee along with applications seeking permission to sell new drugs in the US and approval for generic products. The fee would pay for the US FDA to inspect the facilities of Indian drug exporters to the US for quality control. Since then, the Centre for Drug Evaluation and Research (CDER) division of the FDA has issued a large number of good manufacturing practices (GMP)-related warning letters and inspection reports (called '483' observations) to facilities in India (as well as China). The issues flagged included lack of scientifically sound laboratory controls, discrepancies in data maintenance records, ignoring high-end hygiene standards and problems with plant maintenance/factory environment. A landmark event in India's history with FDA compliance was the exposure by a former employee of an Indian firm (Ranbaxy Laboratories) laying bare how his former employer had failed to conduct proper safety and quality tests on drugs and had misled the US FDA about its procedures. When Ranbaxy was fined $500 million (and the employee earned $48 million through a whistleblower award from the US), the incident threatened to stymie one of the few success stories of Indian manufacturing.[44]

In 2015, nearly half of the FDA's warning letters were to Indian firms. Similarly, the European Medicines Agency carried out 1,333 inspections at 458 manufacturing sites around the world between 2011 and 2016, of which 49 per cent were in India.[45] Rising regulatory challenges and increasing competition led to the establishment of the Indian Pharmaceutical Alliance (IPA) – a group of leading Indian

[43] PB Jayakumar, 'The US Squeeze' *Business Today* (31 December 2017).

[44] Sohini Das, '10 Years of Pharmaceutical Sector: Controls, Regulations Stymie Growth' *Business Standard* (21 March 2018), available at: https://www.business-standard.com/article/companies/10-years-of-pharmaceutical-sector-controls-regulations-stymie-growth-118032001256_1.html.

[45] European Medicines Agency et al, 'Report on the International Active Pharmaceutical Ingredient Inspection Programme 2011–2016' (March 2018), available at: www.ema.europa.eu/docs/en_GB/document_library/Report/2018/04/WC500247387.pdf.

pharmaceutical firms, regulators, and other national and global stakeholder pharma companies – to form a quality forum in 2015. This forum developed guidelines for data reliability, investigations, process validation and good documentation practices, among other things. The guidelines appear to have worked to some degree. While quality issues are an ongoing challenge for the Indian pharmaceutical industry, in 2017 there were 192 FDA inspections, with India's share of warning letters falling to 29 per cent.

The international regulator – the US FDA – began working with its regulatory counterparts in India, including the Indian Export Inspection Council (EIC), the Drugs Controller General of India (DCGI), and the Joint Secretary of the Ministry of Health and Family Welfare. The All India Drug Control Officers Confederation (AIDCOC) organised workshops to train drug inspectors across the country and bridge the gaps that exist between industry and the regulators, while the Central Drugs Standard Control Organization (CDSCO) is trying to make the Indian regulators match international standards through such training sessions. With half of India's pharmaceutical exports going to highly regulated markets, the need to ensure quality assurance at the manufacturing level was manifest.[46]

The influence of external regulators has reached beyond federal agencies in India. The Gujarat government set up the Gujarat Food and Drug Control Administration (FDCA), which signed an agreement with the US FDA for training the drug control officials in capacity building, training, networking, knowledge sharing and compliance. With Gujarat accounting for 28 per cent of India's pharmaceutical exports and having the maximum number of 125 US FDA-approved pharmaceutical manufacturing units in the country, tying up with an external regulator provides another mechanism to augment weak domestic regulatory capacity.

CONCLUSION

The regulatory state in India has grown fast, but it has neither managed to fit neatly within the traditional constitutional framework, nor has its overall structural and design features enabled it to function in the most efficient and productive of ways. Even developed modern democracies, such as the US, struggle with adapting constitutional principles to new regulatory demands, and hence the difficulties of adaptation in India are hardly surprising. Furthermore, the character of the regulatory state in India has been shaped by the country's common law inheritance, the general lack of clarity on the place of administrative law within its written constitution, and the absence of a unifying legislative approach to the problem.

The structural and design themes underlined present a somewhat different set of problems, whether one considers staffing gaps, coordination failures or the lack of functional independence. Some elements of a fitting regulatory design in the context

[46] Sohini Das, 'Pharmaceutical Industry Improving Inspection Skills for Better Compliance' *Business Standard* (8 April 2018), http://www.business-standard.com/article/companies/pharmaceutical-industry-improving-inspection-skills-for-better-compliance-118040800024_1.html.

of India – from the role and composition of the board within an agency to the mechanisms for reporting and accountability – have been carefully underlined in the study by Shubho Roy et al. Some of the structural and design themes reveal failures in conception – say, a failure to properly frame the relationship between a regulator and an executive ministry, a lack of effort to align goals at different levels of government, contractions and tensions within statutes with regard to regulatory goals and means, and so on.[47] Others arise from problems which may be placed under the broad category of capacity.

In each of these instances, the regulatory state is a product of the political economy within which it operates.[48] The state's decision, for example, to leave the relationship between the formal executive and a specific regulatory agency open-ended is often taken for a reason to allow the state to exercise control when it desires and to claim independence when matters go awry. Incentives matter at a more internal level as well. As KP Krishnan and Anirudh Burman show, the internal motivation to improve regulatory processes within specific authorities is weak, as revealed by the improvised developments in administrative processes within regulatory agencies. The force exerted by the environment in which a regulatory state develops is powerfully captured by Aditya Bhattacharjea's chapter on India's regulatory approach to competition law enforcement. The presence of state-owned enterprises has, like in the case of banking regulation, shaped the regulatory apparatus that has developed to curb anti-competitive behaviour. Here, the ubiquity and power of SOEs has meant that the regulatory aims of competitive law were directly at odds with important organs of the state. In countries like India, as Bhattacharjea notes, the development of an antitrust regulator is also made harder by the existence of important welfare objectives. Such objectives invite attention as to whether a competitive environment is indeed ideal in all scenarios, and whether and when it should give way to other goals.

Some of the challenges enumerated above are inherent to the regulatory state itself. There is an intrinsic duality built into the regulatory state, one which is simultaneously a 'liberalising' and a 'controlling' project, where markets might be 'freer' but have 'more rules'.[49] The regulatory state reconfigures the role of the state from direct control to steering and balancing. The state establishes broad rules (like directives) in consultation with affected interests; these interests are then heavily involved in shaping the transposition of those rules into practical measures within specific sectors. Therefore, it should not be surprising that if delegation to independent regulatory agencies was meant to 'depoliticise' contentious issues, that can only go so far. Regulation is not a transitional arrangement between a statist economy and one where self-regulating markets reign supreme. The reason is that regulation is not just about

[47] See, for instance, Aditya Bhattacharjea and Oindrila De, 'Anti-cartel Enforcement in India' (2017) 5 *Journal of Antitrust Enforcement* 166 for a 'structural contradiction' in Indian competition law that hinders anti-cartel enforcement.

[48] See, for instance, Sudha Mahalingam and Deepak Sharma, 'Political Economy of Independent Regulation in India's Natural Gas Industry' (2017) 52 *Economic and Political Weekly* 44 for a discussion of how the political-economy context has shaped regulatory performance in India's natural gas sector. See also Dubash and Morgan (eds) (n 4).

[49] Steven K Vogel, *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries* (Cornell University Press, 1996).

efficiency – it is also about distribution, whether between producers and consumers or among different types of producers and consumers. And that always makes it intrinsically political. Thus, attempts to depoliticise regulation might be misplaced and perhaps could even worsen outcomes.[50]

Any regulatory structure – including not merely the institutions involved but also the overall practices and conventions that determine the exercise of power – is part of the overall governmental framework that exists. The legitimacy as well as the effectiveness of that framework thus shares an important relationship with the broader scheme within which it functions.[51] For instance, a perennial concern in the regulatory literature is the issue of 'capture' by the regulated entities. In India's case, concerns of capture are more about how the judiciary and the civil service have captured the regulators to create retirement jobs for themselves.[52] The weaknesses of other regulatory institutions not covered in this volume – the regulatory bodies that govern the professions and higher education in India in general – seep into the effectiveness of sector regulators. The information contained in financial statements presented to shareholders is based on discretionary accounting choices made by professional accountants, whose training and professional standards reflect the quality of self-regulation of organisations such as the Institute of Chartered Accountants of India. The wider failures of regulation in Indian higher education, whether it is desired or not, affects the quality of human capital staffing these regulatory institutions.[53]

Such debates are, of course, part of a more general inquiry into the possibilities and problems associated with liberalising the Indian economy. Even though liberalisation has occurred in important ways, there is much debate both about the overall goals of such liberalisation and the means that must be employed. A regulatory apparatus that is created within such debates will naturally have to negotiate the tensions that they involve, and so it is to be expected that many debates about regulation in India are debates about the Indian economy and – as the chapters in this volume make clear – about the nature of the Indian state. Many of the challenges in Indian regulation exist because of challenges relating to the Indian state, and perhaps that is revealed at a most basic and fundamental level when one considers questions of governance and of capacity. In the ultimate analysis, then, it is hard to resist the conclusion that the future of Indian regulation will turn on the extent to which the Indian state can address such questions at a systemic level.[54]

[50] For an argument in this vein in the case of India's electricity sector, see Navroz K Dubash, Sunila Kale and Ranjit Bharvirkar (eds), *Mapping Power: The Political Economy of Electricity in India's States* (Oxford University Press, 2018).

[51] This is commonly observed in studies of administrative power. See, for example, Peter Cane, *Controlling Administrative Power: An Historical Comparison* (Cambridge University Press, 2016).

[52] Some recent Indian literature has focused on post-retirement jobs for judges and the impact that this has on adjudication. See Madhav S Aney, Shubhankar Dam and Giovanni Ko, 'Jobs for Justice(s): Corruption in the Supreme Court of India' (2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3087464.

[53] For an analysis of regulatory challenges in Indian higher education, see Devesh Kapur and Pratap Bhanu Mehta (eds), *Navigating the Labyrinth: Perspectives on India's Higher Education* (Orient Blackswan, 2017).

[54] There is much ongoing debate on theory and practice of regulation in India, even as this book goes to press. This is revealed, for example, in a recent issue of the *Economic and Political Weekly* (53(38), 22 September 2018), which contains important contributions on themes ranging from data protection to telecom regulation and competition law.