Introduction

What is the first thing you do when you wake up in the morning? Perhaps it goes something like this. You check your phone for the latest social media updates. After scrolling through short videos on TikTok and Instagram selected especially for you, you get up, determined to master your morning routine. You choose a yoghurt with nutritional label 'A', which stands for 'low fat' and 'no added sugar'. However, you notice that the 'best before' date on the carton has passed. On opening, the yoghurt smells and looks fine, but you throw it away, figuring that it's not worth taking unnecessary risks. As you head into the shower, you notice that your shower gel label says 'no microplastics' and that 'this package was made of recyclable plastic'. You take pride in living in an ecologically sustainable manner, doing your bit to address the climate crisis. During your cycle to work, you stop at a red traffic light, even though there is no traffic today. You wonder why a traffic light is sited here, given that it appears to have little impact on improving traffic flow nor does it seem to improve community safety.

Do you ever wonder why social media companies are allowed to target you with personalised videos and advertisements? Or how food labels and certifications are produced and how much they actually affect people's consumption decisions? For example, why would you throw away food after the 'best before' date even though it seems safe to eat? Or why stop at a red light when there's no one else about? If you are concerned about the climate emergency, you might have pondered why there are numerous rules and regulations addressing these issues in great detail, yet governments appear rather reluctant to implement more demanding measures to combat climate change. These questions, and many more, can be understood as questions about regulation.

Contemporary life relies on regulation. The quality and safety of the water we drink, the food we eat, the air we breathe, the social media applications we use, the clothes we wear and the transportation that we rely on are regulated by multiple regulatory regimes. But society does not stand still, and regulation is expected to 'keep pace' with the needs and priorities of the communities it is

ostensibly intended to serve. Hence, we routinely encounter debates about whether a given regulatory regime continues to be 'fit for purpose' or requires updating, often prompted by technological change, evolving social norms and greater awareness of forms of harms or other threats and 'risks' that enter public consciousness. As a result, affected stakeholders may call for new laws and regulatory measures where they previously did not exist. It is hardly surprising that academic research concerned with regulation is now a well-established, distinct field of scholarly inquiry. Yet acquiring a clear grasp of the content and contours of this work and the nature of its terrain remains difficult and daunting.

When the first edition of this book was published in 2007, its primary aim was to address this problem. It sought to provide a map to help newcomers navigate the field and obtain a holistic understanding of its core features and its varied, wide-ranging terrain. Almost two decades later, policymakers and academic researchers engaged with specific regulatory policies remain poorly acquainted with the body of scholarship we refer to as 'regulatory governance studies' or more simply 'regulatory studies'. For example, ongoing debates about the regulation of digital technologies, social media content and environmental degradation rarely draw upon insights from this literature. Although the regulation of artificial intelligence (AI), for example, now routinely makes newspaper headlines, accompanied by a proliferation of academic and policy papers, many misunderstandings remain regarding whether and why we should regulate, when, how and by whom. Regulation is ultimately a multi- and interdisciplinary endeavour. Regulatory governance scholarship grows out of many disciplines, variously seeking, for example, to understand human welfare; social norms; human psychology; the nature, magnitude and character of risks; the influence of changes to legal rights and duties and political and institutional cultures and their interaction. This is a complex and challenging ambition, which is arguably more important now than ever. By drawing together material from a range of disciplinary perspectives from the humanities and social sciences, including law and public administration, interleaving them with our accessible commentary, we wish to introduce all newcomers to the study of regulation whatever the source of their curiosity, prior disciplinary background or motivation.

Regulation in Historical Context

The origins of regulatory governance scholarship began in the United States where the phenomenon of regulation has been most extensively studied thanks to its early embrace of the 'independent regulatory agency'. During the late nineteenth century, pressures from rapid industrialism, urbanisation

and its economic disruption, all linked to long-distance transportation (particularly the railroad firms and their practices) and interstate commerce, prompted calls for national political leadership and a permanent concentration of government controls. The Sherman Act was passed in 1890 as a response to the nineteenth century 'curse of bigness' that affected a number of economic sectors. This statute prohibited trusts, monopolies and cartels in order to promote economic fairness and competitiveness. The independent regulatory agency became the favoured institutional model for responding to these concerns, forming the basis upon which the Interstate Commerce Commission (1887), the Federal Reserve Board (1913) and the Federal Trade Commission (1914) were established.

During the early 1930s, the number of regulatory agencies grew rapidly as part of 'New Deal' reforms enacted to address the crippling impact of the Great Depression, along with the expansion of the federal administration, reflecting an optimistic belief in their ability to provide for the efficient functioning of economic processes (see Chapters 4 and 5). This set of revolutionary regulatory measures, much like other key moments in the history of regulation that would follow, was the immediate response to the Great Depression, a global economic crisis that prompted the federal government to rethink its position in relation to markets. The Stock Market Crash of 1929 is widely regarded as one of the principal triggers of this crisis. By the early 1970s, regulatory activity and the remit of these regulatory agencies widened as public interest in health, safety, environmental preservation and social inequality spawned a wave of regulatory reform in fields as diverse as motor vehicle safety, product design, air and water pollution, occupational health and safety and many others. However, a few years later, regulatory agencies had fallen out of favour, perceived by many as mired in legalism and bureaucracy (see Chapter 5). The regulatory landscape had become too complex and, in some cases, inefficient and burdensome to those subjected to regulatory oversight. Regulatory requirements were often in conflict. This was accompanied by a general distrust of government intervention in the economy, fuelled by the ideology of neoliberalism rooted in a belief in the superiority of market forces. This gave rise to a strong 'deregulatory' impulse, reflected in a raft of measures introduced by the Reagan Administration (1981-1989) to relieve business from the regulatory burdens and making public administration more responsive to citizen's demands via sensitivity to market forces.

The early emergence, longevity and breadth of authority vested in independent regulatory agencies readily explains why regulation has been well-studied in the US context, tightly linked to the study of US Federal 'administrative law'. In contrast, independent regulatory agencies emerged in the United Kingdom and Europe much later, beginning in the late 1970s and

early 1980s. In the United Kingdom, their emergence was precipitated by the privatisation of state-owned enterprise under the Thatcher administration as the institutional vehicle through which government oversight over these industries was retained alongside a raft of other 'quangos' (quasiautonomous government organisations). At roughly the same time, the drive for internal market integration gathered steam as the European Union matured and the role of the European Commission, its administrative arm, grew in size, stature and authority (see Chapter 11). In the US, British and EU contexts, sustained criticisms have been levelled at a perceived 'democratic deficit' and an associated 'crisis' in accountability arising from allowing unelected bureaucrats to make decisions that affect the wider public in which some gain while others are made worse off (see Chapter 12). In Asia, Africa and South America, the rise of regulation is more recent and has often been driven by the conditions attached to international investment law and economic development loans from the World Bank and International Monetary Fund, the influence of the OECD and other international organisations concerned to foster and promote international trade and the need to comply with EU regulations to gain access to lucrative EU markets. Despite their varied trajectories, each can be understood as specific instantiations of the 'regulatory state'.

The idea of the 'regulatory state' was developed in the 1990s, referring to a particular institutional and policy style as the frontiers of the state were rolled back and the state substantially reduced its involvement in the direct provision of welfare and as an employer or property owner. These transformations did not, however, result in the disappearance of the state but a shift in central function, one from 'rowing' to 'steering' as Osborne and Gaebler's well-chosen metaphor implies. Although the larger economic, political and technological context in which regulatory states operate have changed significantly since then, its central regulatory function remains omnipresent. Despite substantial differences in their particular institutional forms, cultures and practices, what unites these regulatory states is an underlying belief that 'politics' and 'administration' can be separated, the latter being a 'science' that could be entrusted to 'experts' and thus insulated from electoral politics.

A second and related theme that has emerged within regulatory states throughout the world is a growing preoccupation with 'risk' (see Chapter 2). Within academic literature, the regulatory state must now contend with the challenges of the 'risk society', referring to the claim of German sociologist Ulrich Beck that technological advances have produced risks that are industrial in scale and global in their impacts, affecting collective risks that individuals cannot mitigate through unilateral action. Accordingly, the state remains risk protector of last resort, expected to undertake organised attempts to manage risks to collective

welfare. Although states often look to scientific experts for guidance, with its promise of political 'neutrality' and objectivity, they soon discover that what counts as a 'risk', and how best to understand its nature or severity, rarely attracts widespread community consensus. The impossibility of escaping politics and the dynamic interplay of power between competing actors, groups and organised interests, constitutes a third feature of regulatory debate. In other words, despite attempts to portray regulatory policy as a mundane, technocratic endeavor, in reality regulators (whether they are public or private bodies) wield tremendous power. Yet this does not necessarily imply that governments always have the stronger hand, capable of intervening in the economy at will and obstructing freedom to innovate. The reality is more complex. Many private parties (e.g., multinationals, Big Tech firms) have considerable political and economic power, strategically seeking to influence regulatory policy, while often undertaking regulatory functions themselves. The regulatory landscape thus comprises a complex and often overlapping web of players, institutions, interests and power dynamics, interacting in larger regulatory networks. This messy reality exacerbates challenges of communication, coordination and control, while making the task of holding those wielding regulatory authority to account even more difficult. For example, during the COVID-19 pandemic, coordination between the World Health Organisation, a global health regulator, with national and local public health authorities was characterised by multiple miscommunications and ineffective coordination producing contradictory information, confusion and the dissemination of inaccurate information. As this book unfolds, we observe a persistent tension between two central commitments: on the one hand, a belief in 'rational' regulatory decision-making and regulation informed by scientific knowledge and expert judgement and, on the other, the recognition that regulatory policies and decisions reflect political judgements about individual and collective rights, interests and duties in which active participation, particularly by those directly affected, is required if those policies and decisions are to be considered democratically legitimate.

What Do We Mean by Regulation?

The academic study of regulation now extends far beyond its original interest in independent regulatory agencies, encompassing a much wider and more diverse range of institutions, actors and activities. As a field of inquiry, the study of regulation has porous, permeable boundaries. The meaning of regulation is itself contested, partly because regulation as a phenomenon is notoriously difficult to define with clarity and precision. At their narrowest, definitions of regulation centre on deliberate attempts by the state to influence

the behaviour of others by imposing, establishing, monitoring and enforcing legal rules. At their broadest, regulation is seen as encompassing all forms of social control, whether intentional or not and whether imposed by the state or other social institutions. Sometimes scholars, with different disciplinary training, use different terms to refer to the same thing, other times to refer to very different things. This is especially confusing for newcomers. The focus of our examination is on 'regulation', a shorthand expression that we use to refer to 'regulatory governance'. To clarify our terms and ensure consistent usage, we adopt the following definitions.

Definitions

We define regulation as 'intentional, organised attempts to manage or control risk or the behaviours of a different party through the exercise of authority, usually through the use of mechanisms of standard-setting, monitoring and information-gathering and behaviour modification to address a collective tension or problem'. At the core of this definition of regulation are three features. Firstly, regulation is a *purposive* activity, which intentionally seeks to address some kind of social concern; Secondly, regulation entails the operation of some kind of *control system*, which one can view through the lens of cybernetics comprising three key components. As Christopher Hood and his colleagues (Hood et al. 2001: 23) explain:

One of the standard ways of understanding regulation . . . is to view it from a cybernetic angle From such a perspective, any control system in art or nature must by definition contain a minimum of the three components There must be some capacity for standard-setting, to allow a distinction to be made between more or less preferred states of the system. There must also be some capacity for information-gathering or monitoring to produce knowledge about current or changing states of the system. On top of that must be some capacity for behaviour-modification to change the state of the system.

Thirdly, regulation relies on the exercise of authority. So defined, regulation is a specific form of 'governance', that is, a set of systems, institutions, norms and practices through which social coordination is attempted. By authority, we are not only concerned with formal public authority. As the book unfolds, we encounter many private actors that have informal authority, intentionally attempting to regulate, shape and constrain the behaviour of others (see Chapters 7–9). By referring to 'governance' rather than to 'government', we recognise that the task of governing is not the exclusive preserve of the nation-state but often entails a broader range of non-state actors. As the globalisation of markets has proceeded, the state remains central and important. However, regulation has also become decentred due to the

existence of a larger set of networked dynamics that now make up modern systems of regulation. The healthcare sector illustrates this decentralisation, as public health regulation comprises a complex network of public and private regulators at the global (e.g., WHO, International Organization for Standardization), national (e.g., ministries of health) and local (e.g., municipalities) levels. Our definitions may differ from those used by other scholars and from ordinary everyday usage. This definitional pluralism need not be a problem, and many of the terms we use throughout this volume are not terms of art. Rather, this book underlines the need to read scholarly and policy texts with care and attention. We endeavour to highlight potential confusion due to terminological variation, particularly when we introduce extracts from the work of others.

Our Approach

This book offers a 'regulatory perspective' or 'regulatory lens', by curating extracts from a wide and sometimes eclectic body of scholarship that we integrate with our commentary, woven together into a larger conceptual map that develops and draws upon a variety of analytical frames that could be applied to any social and economic domain and within and across any jurisdiction. The extracts we have selected range widely in disciplinary perspective, focus, interest, scope and methods of intellectual inquiry. We reproduce extracts from the original texts (rather than paraphrasing) to capture the different voices, texture and discourse that characterises the field invariably reflecting our own scholarly interests and disciplinary training as legal scholars.

Our motivation in writing this book was partly animated by shared interest in (a) the regulatory implications of the on-going networked digital revolution, (b) a commitment to debunking simplistic and sometimes misleading understandings of the 'law' and law's role in society in discussions about regulatory initiatives, reforms and programmes (including a persistent failure to understand the significance and centrality of rule of law concerns) and (c) a desire to highlight how scholarship from other fields (particularly Science and Technology Studies (STS), economics, management, and humanities) can enrich the study of regulation, even though these scholars may not identify themselves as engaged in the study of regulation. Our approach also reflects our mission and experience as educators. Having taught regulation and public law for many years, we have included texts and examples that, in our experience, help pedagogically to enliven and engage our students. We also include, at times, complex and technical texts because we believe that students, preferably with the assistance of their lecturers, should be able to navigate more advanced texts to equip them to operate in the world beyond the university. Our commentary seeks to offer guidance and reflection on these extracts, highlighting common ground and areas of divergence and sometimes drawing out the wider implications of those similarities and differences in order to help orient and navigate readers.

This book offers an introductory account rather than an in-depth analysis, systematic literature review or an intellectual history of the subject. For those with an interest in learning more about regulation, we list a number of reference books under 'Further Reading'. The vastness of the field inevitably required us to be selective, excluding many significant texts. The resulting 'playlist' that we have curated will not be to everyone's taste. Unfortunately, unlike Spotify or other online platforms, we cannot draw on algorithms to personalise the reading to each reader's taste and disciplinary background. Perhaps technology will enable this in a third edition of the book. For the time being, our goal is to offer a navigation tool that can be a useful starting point for newcomers.

Why a Second Edition?

The number and significance of changes to the social, political and technological context that have swept across the globe since the first edition was published in 2007 have transformed the regulatory landscape, providing us with the impetus to produce this second edition. Five changes are especially salient for regulatory studies.

Firstly, processes of globalisation that have fostered the free flow of goods, services, norms, practices and people across national borders have intensified the interconnectedness of national economies and the proliferation of transnational risks, especially in the wake of the 2008 global financial crisis. As economic and regulatory activity have become increasingly denationalised and deterritorialised, this has stretched social relations across time and space, affecting and altering how governments, people, firms, organisations and institutions interact. Secondly, the range of actors and organisations actively and intentionally involved in regulatory tasks and functions has proliferated and expanded, with growing emphasis on the role of nongovernmental or 'private' actors occupying some kind of role of 'quasiregulatory' role or acting as some kind of 'regulatory intermediary'. Thirdly, the technologies of the Second Machine Age, including advances in artificial intelligence (AI), machine learning and foundation/frontier AI models (including large language models), life science research, advanced materials engineering, and their growing convergence, are frequently portraved as promising techniques for solving societal 'grand challenges'. However, their real-world effects and implications, including their potential adverse consequences, are shrouded in uncertainty. These promises, and accompanying uncertainty, are particularly acute for 'general-purpose' technologies, allowing them to be weaponised in ways that could cause serious and irreversible harm. Fourthly, the need to address global warming to combat climate change is now recognised as an urgent and existential problem, requiring collective action invariably requiring some form of regulation to tackle it effectively. Finally, the COVID-19 pandemic has served as a stark reminder of the transnational nature of 'risks' to human health and the value of collective 'preparedness', generating acute challenges associated with the need to identify and manage new threats to the health and welfare of populations in light of unstable, incomplete yet evolving scientific knowledge and economic, social, political and legal realities.

Multiple changes in the world of ideas, both within public debate and scholarly reflection, have occurred since the first edition was published. We draw attention to three changes that have, in our view, been particularly influential in the study of regulation and that we have sought to incorporate in writing this second edition. Firstly, the language of 'risk', rather than that of 'market failure' appears to be the dominant framework through which regulatory policy is now conducted. Secondly, greater public attention is now paid to various forms of social inequality, particularly on the basis of race and gender, but also in the distribution of the benefits and burdens of globalisation between high- and low-income countries. Hence, there has been a greater recognition of the need to hear the voices, perspectives and experience of those from low-income countries, alongside the rise of 'post-colonial' perspectives and approaches within humanities and social science scholarship. Third, with the rise of populism and the phenomena of online disinformation and misinformation, societies have become increasingly polarised and more susceptible to distrust regulatory expertise and technical knowledge.

These developments have been reflected in the way real-world regulatory regimes have emerged and evolved at the international, regional, national and local levels, while affecting the content and contours of on-going regulatory debates. A wholesale rewriting of this book was therefore needed to take account of the altered landscape and context in producing a second edition. Yet the core concepts around which the study of regulation has proceeded remain largely intact and we have therefore retained and remained faithful to the original edition's basic conceptual frame and structure. Similarly, our original goal of seeking to 'break down a subject which can be rather daunting to newcomers into digestible and accessible form' (original edition, p. 1) remains unaltered. While we acknowledge the need to include perspectives from authors from low- and middle-income regions, the body of literature from which we draw remains dominated by scholarship

from the perspective of Western liberal democratic political cultures. Nevertheless, our regulatory perspective standpoint springs from a foundational commitment to democratic governance: we are not writing for the benefit of authoritarian dictators in search of scholarly insights on how to design and implement regulation to effect their purposes.

Law and Regulation?

In light of the above changes, we have widened the range and diversity of topics and perspectives that we seek to encompass in producing this second edition. Our belief in the vital importance of law's role in regulation has not diminished. On the contrary, our approach seeks to demonstrate that the role of the law is not merely central to regulatory institutions, instruments, policies and practices: it is foundational. Since the first edition was published, we have encountered a tendency of regulatory studies scholars to understand the law in simplistic, instrumental terms, with non-lawyers inclined to equate 'the law' with legal rules. This belief is superficial, partial and inadequate. It fails to recognise that within modern legal systems, legal rules are embedded in a larger, dynamic and highly complex system of multiple institutions, actors, norms and practices that operate together and have evolved organically over time in a specific place and context. Thus, our book springs from the premise that the law is not just a set of rules people are required to follow. Modern legal systems establish and maintain the foundations for peaceful cooperation between strangers ultimately rooted in respect for the rule of law.

This book is not an introduction to law. Just as the study of medicine requires many years of dedicated university-level study before medical students are permitted to practice medicine, so too does the study of law entail many years of dedicated study to enable students to acquire a sufficient understanding of the nature, content and contours of the law before they can be admitted to legal practice. Although we firmly believe in the foundational role of law, and share a deeply held commitment to the rule of law and its aspirational ideals, we are not suggesting that contemporary legal systems are perfect or free of flaws. Chief among these shortcomings is the complex, cumbersome and expensive nature of its institutions and processes that render it largely inaccessible to ordinary people. Nevertheless, those who live in communities with strong rule of law systems expect law to safeguard fundamental rights, property rights and the stability of their private arrangements and transactions. In so doing, the legal system provides a stable, coherent and transparent foundation that enables people to plan their lives and resolve disputes peacefully in accordance with law.

Law constructs and constrains democratic institutions that enable the discussion and articulation of collective choices for and on behalf of the community, endowing those institutions with legitimate authority to impose those choices coercively (see Chapter 11). In recognition of this, modern legal systems seek to condition and constrain the exercise of this coercive authority in the form of institutional safeguards, including constitutional principles. These principles give legal expression to values lying at the heart of democratic freedom that cut across political programmes. Legal principles are ultimately rooted in the respect for the individual as a moral and autonomous agent entitled to be treated with dignity and respect. It is the law's role as a source of constitutional safeguards against the abuse of power that we highlight in examining the law's encounters with regulatory studies, a role that has often been overlooked in academic scholarship and in policy debates. For example, we discuss how growing polarisation in politics and the limited regulation of social media has increased the propensity of 'rule of law backsliding' (see Chapter 11). We also mention other instances that highlight the role of regulation in safeguarding public values. These include recent regulatory scandals where food safety was seriously neglected, affecting, for example, the health of babies in China (Chapter 12), the safety of the populations living in the vicinity of Japan's Fukushima nuclear power plant was put at risk and the case of the London's Grenfell tower inferno where seventy-two residents, mainly low-income immigrants died.

Legal practitioners, scholars and law students will have invariably encountered regulation in legal practice and/or their courses of study. Regulation is often present in public law courses as secondary legislation, that is, legally binding rules promulgated by law-making institutions other than Parliament including the executive branch of government. These include traditional executive bodies (e.g., ministers, state secretaries, the mayor) but also an array of independent regulators that often arise in the study of Administrative Law. In the United States, federal regulators may be the primary focus of administrative law courses while in many civil law countries, independent regulators are likely to be considered (along with other public regulators), yet these courses may focus more generally on public authorities at the national and local level. For law students, this book will demonstrate that regulation is not limited to the study of public law conventionally understood. Those who have studied banking and financial law, energy law, telecommunications law or health law may in fact be studying regulation, even though they might be focused on the substantive content of specific regulations, rather than engaging more deeply and broadly with questions concerning why these regulations were adopted, what alternatives were available and whether they are legitimate.

Structure and Overview

This book is organised into three parts. Part I, entitled 'Foundations' is intended to provide short introductory guides (or 'primers') to central concepts and analytical approaches upon which the contemporary study of regulation and governance frequently draws. Comprising three chapters, this part aims to help those who find it difficult to navigate the field due to its multi-disciplinary character. Readers may wish to dip into one or more of these chapters, depending upon their existing knowledge or interest in the relevant subject, or may prefer to skip them altogether and proceed directly to Part II. Chapter 1 introduces key concepts of economics and regulatory economics, referring to a branch of social sciences concerned with how society chooses to employ its scarce resources (e.g., money, raw materials, time) to produce goods and services. This chapter offers a brief discussion of economic concepts that have shaped regulation. Some readers might consider the discussion rather technical but this is necessary to reflect insights from leading microeconomics scholarship. Chapter 2 introduces the general concept of 'risk' to help readers understand how the concept of risk is employed in regulatory debates, literature and policies, and to recognise that the risk literature is vast and varied, viewed through many disciplinary lenses. It touches upon various perspectives (contrasting 'technical' quantitative approaches with sociological critiques) introducing challenges associated with claimed 'phases' of risk identification, risk assessment and risk management and the 'riskification' of everything. Chapter 3 introduces a variety of academic literatures across the humanities, law and the social sciences that offer insights on understanding technological change that have direct relevance to the challenges of regulating new and emerging technology yet remain largely fragmented and siloed rather than integrated into a single, readily identifiable scholarly field.

Part II, entitled 'Design, Dynamics and Implementation' is concerned with the 'what, why, whether, and how' of the regulatory endeavour, including the design and architecture of regulatory frameworks. It seeks to introduce readers to core concepts concerning the principal theories of regulation, regulatory policy (e.g., cost-benefit analysis) and the modalities, instruments and techniques that are employed for the purpose of setting of regulatory standards and the ways in which enforcement and compliance is undertaken. It consists of six chapters, which comprise Chapters 4–10.

Chapter 4 offers responses to the question 'why regulate?' and 'why do regulatory regimes emerge in a particular form'? by examining 'theories of regulation'. These theories refer to a set of propositions or hypotheses about why regulation emerges, which actors contribute to that emergence and typical patterns of interaction between regulatory actors. We cover theories that reflect several disciplinary approaches, classifying these theories into four

kinds: public interest, private interest theories, systems institutionalist approaches and 'hybrid' theories. For teaching purposes, our discussion of public interest and private interest theories assumes that public and private actors can be distinguished, equating public actors with state actors. Institutionalist and hybrid theories take a more nuanced approach, recognising that the lines between public and private actors are blurred in practice due to plural sources of authority through which regulatory regimes operate, while often blending multiple theoretical approaches.

Chapter 5 examines 'Regulatory Policy' by addressing various questions that arise in considering 'whether' and 'how' to regulate. It focuses on the methodologies of public regulators, that is, authorities established by nation-states or those established by agreement between states in accordance with public international law (for example, those that have some responsibility at the global level for the regulation of specific sectors such as health, transportation, media and entertainment, energy and financial markets). This chapter also focuses on regulation in its narrowest sense: secondary legislation or legislative acts issued by authorities that are part of the executive branch. Although public regulators are frequently influenced by special interest groups (which we discuss in Chapter 4), they often face budgetary, legal and policy requirements that circumscribe how such decisions should be taken. Hence, a range of various 'methods' have been established to provide a more structured framework for evaluating proposed regulatory measures, including cost-benefit analysis, regulatory impact assessments and the use of consultations, all of which are explored in this chapter.

Chapters 6 and 7 are concerned with instruments, tools and modalities of control through which attempts are made to influence the behaviour of others in pursuit of its pre-specified goals. Although multiple tools and techniques can be employed to influence, control and coordinate the behaviour of others, they have been classified in many ways. Chapter 6 classifies regulatory tools according to the underlying technique or 'modality' of control or source of influence, examining five such modalities in turn: command, competition, communication, consensus and code (or 'architecture'). In Chapter 7, our examination builds upon this five-fold classification scheme by exploring a variety of 'hybrid' techniques, referring to an amalgam of mechanisms, sometimes drawing on multiple sources of regulatory influence, including various non-state intermediaries, rather than relying exclusively on the regulatory capacities of the state. Given that public regulators must also make choices about which instruments to adopt for specific purposes in any given context, a variety of issues that bear upon instrument choice are also considered. The chapter closes with a brief overview of various kinds of 'experimental regulation', including regulatory sandboxes.

Chapter 8 examines regulatory rules, beginning with an examination of written rules. It underlines the inescapability of interpretive uncertainty and considers ways in which that uncertainty can be addressed, including varying the precision of rules, how they are specified, the publication of interpretive 'guidance' (sometimes called 'soft law') and the delegation of detailed standard-setting to 'technical experts'. We also consider problems associated with rule avoidance behaviour and difficulties that arise in identifying whether a particular rule should apply to any given set of facts or circumstances and if so how. It also briefly considers how the embedding of standards into algorithmic code rather than linguistic text may appear to solve problems associated with interpretive uncertainty, while, in reality, it merely shifts those problems to another part of the rule application process.

Chapter 9 explores regulatory compliance, enforcement and certification. It analyses the vital role of enforcement action and how rules aimed at influencing human and institutional behaviour are translated into social reality. It draws attention to the human interaction that takes place during encounters with regulatory enforcement officials and regulators. We discuss how 'risk-based' approaches to regulation can be understood and operationalised. It then touches upon the investigatory powers of public regulators, and the nature, purpose and variety of regulatory sanctions. Finally, it examines the role of 'private' bodies and other 'regulatory intermediaries' in certifying that a regulatee's activities complies with regulatory standards that purport to offer consumers, as primary beneficiaries, 'assurance' of the quality of the resulting outputs.

Chapter 10 provides an overview of the role and functions of private enforcement within regulatory regimes and the availability of redress. It draws attention to different 'models of legal responsibility' upon which regulatory regimes rely in allocating and distributing legal rights and duties between regulatees and regulatory beneficiaries. This chapter is the most legally-focused chapter in the volume, selectively highlighting several features of the institutional and enforcement context in which regulation occurs. Examples are private litigation, collective redress mechanisms, the role of courts as authoritative and final interpreters of the law and 'alternative' avenues for redress.

Part III of the book, entitled 'Evaluation' comprises Chapters 11 and 12, which investigate the legitimacy and accountability of regulatory actors. Our primary concern in Chapter 11 is with 'regulatory legitimacy', a term employed in the regulatory governance literature. To understand what regulatory legitimacy entails, however, we need to acquire a basic understanding of legitimacy, which takes up the first part of this chapter. The concept of legitimacy has been extensively studied by scholars from various academic disciplines, including political theory, legal theory, political science, sociology and management studies. The resulting body of scholarship has, however, tended to remain in disciplinary siloes, making the study of legitimacy difficult

to navigate. Chapter 11 offers first an exploration of different legitimacy claims that justify why individuals recognise an authority and its rules as legitimate. The chapter then moves to key debates on regulatory legitimacy.

Chapter 12 discusses accountability in regulation. Accountability is part of a family of concepts that relate to the exercise of power and its abuses. It construes the relationship between regulators and regulatees according to principal-agent theory and explains how accountability can be an important mechanism for requiring answerability, ensuring that agents (regulators) do not drift from the interests of regulatees. The chapter explains that accountability consists of four elements: (i) a duty to explain, (ii) exposure to scrutiny, (iii) a potential 'sanction' or a consequence of some kind and (iv) the possibility of being subject to independent review. We explore these elements through the complexities of interdisciplinary debates on transparency, algorithmic accountability, privatisation, and multi-actor regulation and the accountability deficits that often arise when 'everyone is accountable but no one really is'.

The book closes with a short Conclusion.

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