

## Introduction: Why Innovation Is Not (Just) Romantic, and Regulation Is Not Dull

### INNOVATION AND REGULATION

This book is being written during an ideological “cusp time,” in the wake of an unexpected rise in political populism across the United States, the United Kingdom, and Europe. The year 2016 was politically an extraordinary one, which saw the election of a President Donald Trump in the United States (after the unexpected political rise and then fall of a socialist senator from Vermont, Bernie Sanders, as a potential Democratic Party candidate), along with a British popular vote in favor of leaving the European Union, rising populism in Europe, and a generally palpable sense of popular anger. Clearly, this is not business as usual. The target of the anger varies – big banks, off-shore workers, undocumented immigrants, refugees, people with any range of minority characteristics, elites. Some versions of this early twenty-first-century version of populism carry alarming strains of racist and anti-democratic sentiment, which must be resisted. A more common theme, though – and perhaps one we might be sympathetic to – seems to be deep popular dissatisfaction with the political status quo, with globalization and its dislocations, and a sense of increasing inequality, loss of opportunity, and a sense that the benefits of globalization have been concentrated among a small few. At least one public intellectual has blamed the recent rise of populist anger on a thing called “neoliberalism.”<sup>1</sup>

By the time this book is published, the current political moment will be passing and we will be confronting a newer iteration of these challenges. Yet the wheels of policy, as opposed to politics, will grind forward in their slow way, and it is at this level that fundamental change will be embedded, institutionalized, and made real. As a scholar of regulation, my contribution lies in drawing the long arc of policy over the last few decades.

Though it takes different forms, one of the key questions before us is really how we intend to deal with the effects of innovation in our societies. We love innovation – crowdsourcing, the sharing economy, communications technology, the hive mind, and the extraordinary medical advances. But several distinct voices today also channel a degree of inchoate anger and confusion about the dark side of innovation. For innovation, of course, also produces globalization, financialization, complexity, surveillance, and insecurity. Groups of people win, and lose, when innovation changes the ground rules. Innovativeness begets power, and influence. To some extent, at least in regulatory terms, the fight from here will be about what kinds of policies we want to put in place to deal with these innovations and their consequences.

Some would say that our romance with innovation, and the thrall in which innovators sometimes hold the rest of us, have profoundly influenced the trajectory of public policy and regulation in the last three decades or more. Whether this is true is one of the questions this book tries to consider. Even if it is not so stark as all that, there is no doubt that private sector innovation and public sector regulation these past few decades have been engaged in a close and complex dance. Moreover, though a great deal has been said about “regulatory innovations,” sometimes we are left with the sense that those innovations have been aimed primarily at making regulation more flexible, less burdensome, cheaper, and more efficient, not for everyone’s sake but the sake of certain private sector actors and their innovative efforts.

Our collective romance with innovation presents powerful framing opportunities, including for those who describe their own work as part of a grand innovation narrative. This group can include not only those seeking a cure for a particular cancer, but those seeking to protect the statutory monopoly that patent law provides; not only those trying to get credit and insurance into the hands of poor women in the Global South, but also those trying to develop financial products that are more lucrative for their firms, and more illegible to regulation; not only those trying to build a sharing economy, with all its promise and peril, but also those burrowing ever more deeply and insidiously into once-private aspects of our lives.

Yet, of course, there is no easy separating “good” innovation from “bad,” even if we could agree on what fell into each category. Nor can we, except at great cost, turn back the clock. The postwar Welfare State ceased to exist for reasons beyond ideology, though of course ideology mattered too. As much as we may now romanticize the postwar economic era, the path forward will have to look different from the path we have trod so far. Charting that path requires that we know where we have come from and where, exactly, we are now. Real work is needed at the level of policy and regulation. In the service

of trying to generate a more decent, democratic, and effective kind of financial regulation, this book aims to highlight the relationship between innovation and regulation.

I argue that it is time for regulation, and regulatory scholars like me, to turn our gaze toward innovation as a phenomenon. What if, instead of seeing *regulation* as the flawed structure that we should be tinkering with, we turned our attention toward the problems that *innovation* itself presents – both for public policy, and for regulation itself? Thinking of innovation as a regulatory challenge (or a nested set of regulatory challenges) puts regulation on firmer and more independent footing. It makes it possible for regulators to articulate an autonomous, coherent set of regulatory priorities and practices, in the service of the public good, that amount to more than simply trying not to get in the way of private sector innovation, or trying not to fall too far behind its practitioners. This book tries to begin this project.

However, thinking of innovation in this way requires a more nuanced and granular understanding of private sector innovation than we have developed thus far. Innovation is not a monolithic phenomenon, and it interacts with regulation in a variety of different ways. For instance, sometimes innovations are specifically designed to circumvent regulatory restrictions. Sometimes, private sector innovations can be incorporated into regulation, thereby improving it. Sometimes, innovation proceeds quite oblivious to regulation, even while it has the effect of undermining regulatory goals. Thinking more carefully about these interactions also requires us to understand how regulation has ended up being so apparently change-loving, innovation-focused, and sometimes deferential to private actors. It requires embedding more, and more careful learning about innovation into our regulatory structures. Indeed, we need to ask a fresh set of questions before we can even *see* innovation happening clearly. Finally, and most fundamentally, thinking about innovation as a regulatory challenge should push us to think more deeply about why, as a matter of public policy, we value innovation as highly as we do and what tradeoffs we make when we give it priority of place. These are the challenges this book undertakes.

This book advances the idea that financial regulation will be more effective if it substantially redirects its attention toward a different regulatory object: toward financial innovation itself.<sup>2</sup> This is not because financial innovation is invariably bad; it is not. It is not because I am opposed to innovation, financial or otherwise. I am not. It is because focusing on regulating innovation can serve as an Occam's razor for cutting through the otherwise-almost crippling sets of overlapping, multiscalar, interconnected considerations and concerns that animate regulation in the very complicated, complex spaces in which financial regulation must operate.

The project was spurred by some of the hard questions raised by the 2007–2008 financial crisis about the ways in which regulation, particularly the regulation of innovative financial products, has been structured over the last two decades. More about that later. But it was a line in the UK Financial Services Authority’s (FSA’s) Turner Review from March 2009 that provoked its precise shape. In his analysis of the origins of and responses to the financial crisis, Lord Adair Turner makes this observation:

An underlying assumption of financial regulation in the US, the UK and across the world, has been that financial innovation is by definition beneficial, since market discipline will winnow out any unnecessary or value destructive innovations. As a result, regulators have not considered it their role to judge the value of different financial products, and they have in general avoided direct product regulation, certainly in wholesale markets with sophisticated investors.<sup>3</sup>

This is a provocative statement. Breaking the quote down, Lord Turner is making three separate points, each of which is potentially controversial. His first claim is that financial regulation across the world assumed that financial innovation is by definition beneficial. I cannot speak for transnational financial regulation as a whole, though I have my doubts that the assumptions underlying financial regulation “in the US, the UK and across the world” were quite so wholesale or monolithic as all that. The Turner Review does not pretend to have done the empirical work needed to support that assertion.

Second, Lord Turner is saying that the *reason* financial innovation was thought to be beneficial was because market discipline – that is, an efficient and rational market – could be counted on to winnow out unproductive ideas. In other words, according to Lord Turner, financial regulators across the world had accepted, wholeheartedly if not explicitly, what is known as the Efficient Market Theory (EMT). The EMT posits that the collective behavior of rational, self-interested actors in a frictionless market will lead to the most efficient possible allocation of resources. Few working in economics believe that such a market actually exists outside the realm of theory. However, Lord Turner suggests that financial regulators believed it, at least in the wholesale markets, where ostensibly sophisticated investors like global financial institutions manufacture and market new financial products.

Lord Turner’s third claim follows from the second. If the market is the most efficient way to allocate resources, then financial regulators can only mess things up by intervening in the market, whether to judge the value of different financial products or to regulate them. In other words, according to Lord Turner, in the highly innovative and fast-moving world in which

wholesale-level financial institutions operate, even regulators saw themselves as having virtually no active role at the regulatory “front end” (though presumably they could still enforce the anti-fraud and other laws at the enforcement “back end”).

I am a legal scholar who writes about financial regulation. Among other things, I write about the speed and complexity that characterize financial markets, and I think about what this means for regulation. I have even written favorably about the main target of Lord Turner’s critique, the (now abolished) FSA in the UK. Yet, reading Lord Turner’s analysis, I can say that embracing private sector innovation and celebrating market discipline was not what I thought I was doing in my work. Nor did his words resonate as an accurate account of what I thought my colleagues in regulation and governance studies were doing. On the contrary, I would wager that most of my academic colleagues in the field would have celebrated the idea of a tough, independent-minded, well-resourced regulator, as I did, and celebrated the renewed sense of regulatory mission that Lord Turner’s review helped generate.

Certainly, financial regulatory scholarship, like regulatory scholarship generally, has changed a great deal over the past two or three decades. There is a sort of superficial, at-first-glance correspondence between the innovation-loving model Lord Turner describes and the receptiveness to innovation in the regulatory work that I know. But very little of this work has had much to do with unmitigated faith in market discipline or the kind of chastened regulatory role the Turner Review described.

If asked to define the goals of regulation and governance scholarship generally, of most financial regulation scholarship, or of my own work, I would have said they were to strengthen and deepen public regulation in order to help it better meet the challenges of contemporary society, not to cede the field to private actors based on some sweeping confidence in market forces (or, indeed, in self-interested market actors). The scholars whose work I know best are overwhelmingly concerned with what in North America are understood as progressive priorities: they want to deploy innovative regulatory strategies in the service of equality and human dignity, environmental regulation, workplace safety, employment discrimination, and the like. They are not blind to the ways in which market behavior can advance self-interested and even predatory behavior. While some may be skeptical of old-style, rigid formulations of “rights” and argue that they should be opened up to debate, they do so not out of a desire to roll back hard-won successes of equality-seeking groups but rather to make them even more meaningful. If they find rights-based analysis unsatisfactory, it is because it does not go far enough in promoting priorities such as equality and human flourishing.<sup>4</sup> While some scholars may adopt

locally driven (including private sector) innovations as a basis for regulatory change, they do not imagine that self-regulation on its own is a prescription for greater social welfare. Rather, they seek to link private, local learning with a public – and publicly enforced – set of goals and to embed public-mindedness, compliance, and responsibility into private institutions.

In the wake of the financial crisis and in the midst of a populist political moment, marked by widespread anger and a perception that the dislocations and losses associated with innovation and globalization have been concentrated while its benefits have not been shared, the path forward for progressive priorities is not yet clear. A great deal of important work is being done to understand the origins and nature of inequality and its relationship to political and economic choices. There is work to be done at the level of “high politics” – those high salience moments, like elections, when everyone is paying attention.<sup>5</sup> At the same time, “high politics” are always only part of the picture, and they can be unpredictable. The “low politics” of regulatory structure and policy are where a lot of real work gets done.

Regulation is at the leading edge of politics and policy in ways that we do not always fully grasp. Seemingly innocuous regulatory design choices have clear and profound practical ramifications for many of our most cherished social commitments. This book examines the somewhat wonkish, unglamorous, and yet highly consequential world of regulation as it relates to the phenomenon of innovation: it asks how regulation should understand innovation, and how it should respond to it. For regulation affects innovation, but the converse is also true.

This is this book’s essential point: that as much as progressive-minded and equality-seeking people may celebrate initiatives geared toward, say, enhancing normal peoples’ access to and voice within financial regulation policy, or exerting more effective regulatory oversight over the financial institutions that affect everyone’s financial wellbeing,<sup>6</sup> those initiatives and others like them will not be certain to succeed if we do not also start to think of innovation (and in that context, financial innovation) as a *first-order concern* for regulation. Without losing sight of its broader normative goals, regulatory attention – in securities, in banking, in insurance, and in systemic risk regulation – needs to shift more of its operational focus toward innovation itself, and the ways that it undermines and circumvents the best-laid regulatory structures. This involves understanding innovation as a technological phenomenon, but also as a very human, almost sociological phenomenon. By looking closely at both contemporary regulatory approaches, and the nature of innovation, this book begins the work of developing the vocabulary and approach required to understand how to design regulation that is better able to withstand innovation’s corrosive effects.

## INNOVATION, PROGRESS, HOPE

To say that we live in an age of innovation and rapid change is such a trite and eye-rolling tired observation – and such a true one – that most of the time we can hardly bear to make it. We have been grappling with profound change for centuries now. In some parts of some societies, hardly any generation since the Renaissance has been spared momentous change over its life span. But still, these days, change – particularly human-generated change, and particularly spurred by innovations in computing and communications technology – is clearly moving very quickly. Hot innovation topics over the last year have included communications and social media technology, artificial intelligence, big data, driverless cars, functional MRI and brain mapping, DNA mapping and CRISPR, the rise of the sharing economy and new financial technology (“fintech”), and cyberterrorism.<sup>7</sup> Even by the time this book goes to press, new topics will have been added to that list.

The idea that human innovation is a central driver of positive social change and greater human flourishing is not new. Nor is resistance to it, which dates at least as far back as the Luddites’ famous crusade against the mechanical loom.<sup>8</sup> Yet most of us today would probably prefer a world that is constantly being remade by human innovation to one that is shackled to the eternal wheel of unchanging fate. Westerners today can barely conceive of their lives in the static, resource-poor, and generally zero-sum terms that characterized (and for many people in the world, continue to characterize) most of human existence.

Our dominant cultural story continues to be pro-innovation (and pro-growth).<sup>9</sup> Innovation is the product of that most cherished good, human creativity. It carries with it the prospect of problems solved and diseases eradicated, of fresh adventures and a larger pie. For most people to be anti-innovation is still to be unenlightened, fearful, backward, and blind to possibility. Change-resisters – individuals, corporations, states, even *species* specialists like migratory songbirds and polar bears – are doomed, often tragically, to the wrong side of history. Our public policy choices and our public dialogue endlessly reflect this, often speaking of innovativeness as if there could be no higher compliment.

Certainly there are times when the debate is more nuanced, and we seem more aware of both the pros and the cons of innovation.<sup>10</sup> In particular, we understand that we rarely know exactly where our innovations will lead us. We may be convinced that innovation is generally a good thing – sometimes, a great thing – but we also recognize that it brings with it new risks and new anxieties. Our concerns today focus around the ways in which an increasingly

integrated global economy, communications technology, financial engineering, and anthropogenic climate change and environmental degradation – all products of human innovation – could affect our standards of living, our privacy and personal security, our physical communities, and our interpersonal connections.<sup>11</sup> Financial innovation in particular is sometimes treated almost as a traitor to the otherwise-virtuous innovative cause, or some malign, outlier form that needs to be eradicated without disturbing the broader innovative effort.

Our current post-crisis political moment is marked by greater than usual concern about the effects of innovation. Yet this moment is analogous to the weather event – the particularly cold winter – that seemingly gives the lie to the claim that the climate is changing. In fact, climate reflects the broader pattern, and weather is variation along the way. Fundamentally, our modern Western social and economic climate still cannot imagine a future without innovation. Or, perhaps it is more accurate to say that we resist confronting the real costs associated with our affluent, convenient, miraculous modern age. Where we can, we prefer to embrace have-our-cake-and-eat-it-too solutions: “sustainable” growth, “green” energy, silver-bullet new innovative solutions. When the challenges innovation has generated seem too closely connected to benefits we cannot stand to part with (like our fossil fuel-reliant homes and vehicles, the Green Revolution in agriculture, incredibly cheap consumer goods), we may lapse into paralysis. Ours is an era of persistent hope about what human ingenuity may produce, coupled sometimes with denial and inchoate apprehension about its potential consequences.

Contemporary word use illustrates where the balance sits. Through linguistic analysis of popular and academic English language word use – itself a “big data” innovation – we can see which words we use most commonly and how we use them. It turns out that the word “innovation” figures prominently. In late 2012, “innovation” ranked 3684 within the 60,000 most commonly used English words, placing it near the top 6 percent, which is high given that the top scorers were words like “the,” “be,” and “and.”<sup>12</sup> Interestingly, “innovation” is used more frequently than “liberty” and “equality,” and much more frequently than “globalization.” And although it ranks well below words used in a wide variety of contexts, like “risk” and “growth,” it is not actually that far behind “democracy” or “freedom.”<sup>13</sup>

The academic sector uses the word “innovation” more – just under half of its use is in academic sources<sup>14</sup> – but close to another third of its frequency among most commonly used English words comes from popular magazines. As well, innovation is associated with very positive normative language. We can discern this by looking at “collocates” – the words that tend to appear next to or close to a

root word.<sup>15</sup> The top collocates for “innovation” include words such as: “important,” “key,” “successful,” “encourage,” “introduce,” “leadership,” “promote,” “progress,” “educational,” “adopt,” “improvement,” “invest,” “creative,” “initiative,” “discovery,” “inspire,” “embrace,” and “exciting.”<sup>16</sup> This means the top hits for “innovation” in the corpus include phrases like “we should embrace innovation” or “an exciting innovation.” Overall, our collective conversation around innovation tends to be highly normative, and highly positive.

Comparing the top collocates for “innovation” with those for words like “growth,” “globalization,” and “regulation” only reinforces this point. These words carried far less explicit normative content. Most commonly, their collocates were indicators of the pace, type, or nature of the root word. For example, “globalization trend” and “command regulation” were common phrases. Even related words like “freedom” had slightly less normative content than “innovation,” perhaps because the normative goodness of freedom is so accepted as no longer to merit discussion.<sup>17</sup>

Based on their collocates, the normative content of the word “liberty” slightly outstripped “innovation,” and words like “equality” and “democracy” outstripped it further.<sup>18</sup> These words tended to be associated with highly normative collocates, such as “protection,” “respect,” “privilege,” “ideal,” “blessing,” and “happiness.” It is no surprise that “innovation” is less normatively laden than “liberty,” “equality,” and “democracy,” words of a far stronger and deeper vintage. The fact that “innovation” is even comparable to those words, in terms of normative load and frequency of use, illustrates how deeply it has become embedded in our collective imagination. What is more, the collocates for “innovation” tend to be more energetic and forward-looking. We may “protect” or “respect” well-established principles like democracy, but we want to “embrace” innovation, which is “exciting.”

Our romantic associations with innovation cannot help but influence our response to it, including our public response in the form of regulation.

#### WHAT DOES CONTEMPORARY REGULATION LOOK LIKE?

The idea of innovation pops up everywhere in contemporary life. By contrast, regulation – this book’s other main concern – operates in a hard-to-see, seemingly technocratic layer, insulated from the realm of easy sloganeering and popular engagement. And yet it is crucial legal architecture: it touches virtually every facet of modern life. What is more, *how* it structures aspects of modern life – the tools it uses, the points at which it enters – fundamentally shapes the options available to private sector actors and affects their conduct in subtle but highly consequential ways.

What is regulation? The Oxford English Dictionary defines it as “a rule or directive made and maintained by an authority.”<sup>19</sup> When used in this way, regulation can be understood as a subspecies of the broader category of law. Yet other definitions would actually make law a subspecies of regulation. Particularly when it is linked to the broader notion of “governance,” regulation can be understood as incorporating not only formal, traditional state activity but also a broad range of influential non-state forces.<sup>20</sup>

For our purposes, two other definitions of “regulation” are especially useful. The first is Philip Selznick’s, who defines it as the “sustained and focused control exercised by a public agency over activities that are valued by a community.”<sup>21</sup> Selznick’s definition emphasizes the public nature of regulation and its connection to policy priorities. Describing regulation as “sustained” distinguishes it from ad hoc enforcement activity or specific deterrence. However, it may bring to mind a direct, top-down, agency-driven effort at control, something that not all contemporary regulatory structures necessarily do. (Selznick’s definition dates from 1985, eons ago in regulatory time.) It also implies that the public agency will inevitably succeed in its efforts to control the designated activities, which, of course, is not always true.

A second definition is Julia Black’s: she defines regulation as “the intentional activity of attempting to control, order or influence the behaviour of others.”<sup>22</sup> As Black notes, intentionality is an important element that distinguishes regulation from non-intentional forces – like the market, social norms, or technologies – that may also control, order or influence behavior. As chapters 3 and 4 show, flexible regulatory structures often seek to harness and steer these other forces, directly or indirectly, even while they maintain a public character that is distinct from them. Black’s definition allows for any agent, not just the state, to be attempting to regulate. While non-state action certainly can control, order, or influence behavior, my interest is primarily in state action (whether acting directly, for example, through legal sanction, or when intentionally trying to influence other phenomena, like the market or social pressure, through the use of its legal and structuring tools). For our purposes, then, regulation should be defined as *sustained and intentional activity by the state in attempting, through direct or indirect methods, to control, order, or influence the behaviour of others in the service of public policy priorities.*

Contemporary regulation may attempt to control, order, or influence the behaviour of others in a variety of direct or indirect ways. As Christopher Hood and his coauthors have pointed out, regulation requires three fundamental things: there must be “some capacity for *standard-setting* to allow a distinction to be made between more and less preferred states of the system ... some capacity for *information-gathering* or monitoring to produce knowledge about