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What Is Peak Pharma?

Introduction

It seems as though, over the past decade, the world has seen an unspoken competition for the status of 'highest-priced medicine ever'. In 2014, the US pharmaceutical company Gilead led this competition by selling Sovaldi, its life-saving hepatitis C drug, for US$84,000 per patient (Bourgeron and Geiger 2022b). Other drugs quickly took over this doubtful award, upping the pricing stakes each time. In 2021, Novartis brought its orphan drug Zolgensma on the market at US$2.1m per therapy (Nuijten 2021). Zynteglo followed in 2022 when Bluebird Bio priced it at US$2.8m per therapy, only to be topped by Hemgenix shortly afterwards, priced by CSL Behring at US$3.5m per therapy (Peebles 2023; Furlong 2024). As this near-exponential rise in the price of new drugs has not been matched by increases in public health insurers' and private households' budgets, surely this trend will have to peak at some point. But when? And can citizens, regulators, or civil society do anything to halt this process, or will we have to let it accelerate to its bitter end—the 'peak'? And what will happen then? More generally, is there a point where an industry collapses under its own greed, of having captured too much value for itself, leaving none to any other actor in the system?

This book is concerned with just these questions. We define and test the notion of 'peak' in an industry that seems to have gone from strength to strength over the past decades, judging by its profitability, CEO salaries, and shareholder pay-outs: pharmaceuticals. Yet, despite the industry seemingly being in rude financial health, from a social perspective, vertiginously increasing prices of medicines are not the only unsustainable aspect of the pharmaceutical market. The COVID-19 vaccine rollout, for instance, saw widely disturbed pharmaceutical sector politics. The monopolies that multinational corporations held over COVID-19 vaccine patents caused vaccine distribution queues and huge inequities in vaccination rates across the globe. Many countries had to accept dire health consequences: later access to vaccines, longer lockdowns, higher death tolls. The differential access to

COVID-19 vaccines also sparked significant political debates. In a surprise move in May 2021, US President Joe Biden came out to recommend waiving intellectual property rights of COVID-19 vaccines and other technologies. This waiver was meant to accelerate the manufacturing and distribution of the vaccine by activating a rarely-used clause in the World Trade Organization TRIPS treaty (Geiger and McMahon 2023). This was a surprising decision because, for decades, the US had threatened to retaliate against any country that dared evoke this right, even at the worst of the HIV crisis. This situation emphasized just how contested the legal international trade arrangement of the pharmaceutical industry had become—and how politically unstable the coalition was that had buttressed its value regime for the longest time.

Myriad other tensions plague an industry that supplies nearly all of the world's pharmaceuticals (a small minority of pharmaceutical manufacturing is in public hands): an increasing concentration of ever-more powerful multinational pharmaceutical firms that conduct less and less of the fundamental research and development (R&D) for new medicines; the geographic concentration of raw materials in certain parts of the world, threatening supply chains not only in emergencies such as the COVID-19 pandemic; the increasingly frequent rationing of high-priced pharmaceuticals to a small number of patients even in the richest health systems; and so the list goes on. In this book, we argue that these tendencies towards concentration, spiralling prices, and restricting the circle of those who benefit from its innovations to a smaller and smaller group are the most visible symptoms of an increasingly unsustainable market order. We claim that the pharmaceutical excesses of the past forty years and the contestations they have caused are slowly but inexorably leading to a point of no return, a point where this particular cog of financial capitalism has run out of time. In short, and in the vocabulary that we lay out in this introduction: we argue that the regime under which the pharmaceutical industry has functioned over the past four decades, which we call the neoliberal value regime of pharmaceuticals, is reaching its peak. While 'peak oil' has been predicted for decades and may yet arrive to end society as we know it, we argue that the strongest disturbance to our neoliberal economy, inherited from the last decades of the past millennium, may, in fact, come from another (often overlooked) lifeblood of our societies: pharmaceuticals. The neoliberal value regime behind pharmaceuticals is reaching its 'peak' in several vital respects: peak pricing, peak resource concentration, peak financialization, and peak expansion. Our book is concerned with this peak and what comes next.

The Exhaustion of the Neoliberal Value Regime

Many books have emphasized how pharmaceutical profit-making puts patients at risk. We have read about 'Pharmageddon' (Healy 2012), 'Pharmocracy' (Sunder Rajan 2017), and 'Pharmanomics' (Dearden 2023), all of them and several more laying out the negative health predicaments the pharmaceutical industry gives rise to: aggressive pricing of, for instance, (publicly financed) COVID-19 vaccines, pushing addictive painkillers, silencing whistle-blowers, hiding clinical trial results and side-effects, developing me-too drugs, evergreening patents, being less than careful with informed consent and personal data. The pharmaceutical industry justifies its exclusionary dimension—the fact that access to its innovations is restricted to some patients through high drug prices—by arguing that these prices are needed to cover the purportedly exorbitant costs of R&D and future pharmaceutical progress. The granting of intellectual property rights (henceforth, simply 'patents' or IPRs) and the monopoly power (and potential to market abuse) that these rights enable is presented as a necessary evil to entice firms to innovate at all. The concentration of firms and manufacturing sites is said to be needed to reach economies of scale, enhance profitability and, in turn, innovativeness, and so forth. It seems as though the pharmaceutical industry relies on a status quo that not only generates the inequities we know about but also feeds on them and endures through perpetuating them under the guise of this innovation narrative. The investigative books referred to above deconstruct this narrative carefully and forcefully. They show how patients pay a high health cost for the malfunctioning of the pharmaceutical industry (Healy 2012), how the entire industry is organized for profit and not for the greater public health good (Dearden 2023), and how its institutions are not based on the need to create innovation incentives but on global and structural power hierarchies (Sunder Rajan 2017). In this book, we take one step further in exposing the contradictions in the industry's narrative. By examining the struggles that have taken place around pharmaceuticals over the past four decades, we contend that the material and political structures that have enabled this perpetuation are being exhausted. In short, we claim that the industry is reaching its peak—not only in its profitability or the ever-increasing prices it demands but, more crucially, in losing the social and institutional support that has perpetuated its narrative.

While previous takes on the excesses of the pharmaceutical industry have led to calls for more regulation of the sector, we argue that significant changes will *invariably* occur to the pharmaceutical sector once it has reached its peak. Rather than following an evolutionary pattern, we believe

that the nature and direction of these changes are not yet determined—and that it is a matter of directing these changes through regulations but also, and perhaps more importantly, through public dialogue. We are entering a transitory phase—political sociologists would call it an *interregnum*—between the neoliberal value regime that emerged in the 1980s and a new pharmaceutical regime that is yet to emerge. This creates pressing political issues. The nature of the new regime is still undetermined, and there are struggles over who will benefit: multinational pharmaceutical corporations and the ecosystems they have built around them—or the patients who may or may not be able to afford expensive medicines. These are high-stakes questions. While the peak can result in a positive change of direction, it can also trigger something worse—a new regime even more exploitative than the current one. In this book, we draw up a roadmap of how and why we have arrived at the current situation, where this peak stems from, and how the peak can be made instrumental for the collective good. We seek to help create a new narrative, building on civil society's efforts to change this market's trajectory in a fundamental way: one that leads from today's neoliberal value regime into a commons-based value regime, undergirding a wholly new political economy of health.

This introductory chapter presents our main argument: that we have reached the limits of the value regime underlying the pharmaceutical industrial model—the neoliberal pharmaceutical value regime—and it lays out the main theoretical inspirations that we draw upon to make our argument. Starting from the 1980s, the neoliberal value regime has worked by engendering multiple exclusions, both of persons and communities that have not had (or, in some cases, lost) access to the fruits of pharmaceutical innovation. In essence, this chapter argues that one cannot think about a highly marketized economy—particularly the one that intersects so heavily with issues of life and death—without considering its inclusions and exclusions or the needs it does and does not take into account. Once these exclusions become stark enough for the marketized pharmaceutical sector to face significant discontents, its entire raison d'être is in peril.

The Tension between Financial Accumulation and Health

In this volume, we argue that over the past four decades, the pharmaceutical industry, aided by policymakers and other players mainly situated in high-income countries (HICs), has constructed a market order that generates ever-increasing tensions between the two fundamental value flows underlying this sector: financial accumulation and health. This market order

has a name: we call it the neoliberal value regime of pharmaceuticals. We adopt the concept of pharmaceutical regime from Sunder Rajan (2017, p. 6), though the concept of regime is also used by regulationists and neo-Marxist political economists, with scholars such as Robert Boyer (2020) discussing large-scale transformations in 'accumulation regimes'. In Sunder Rajan's work, the pharmaceutical regime (which he also calls 'pharmocracy') refers to the various sets of institutions that allow for the 'global hegemony of the multinational pharmaceutical industry' (Sunder Rajan 2017, p. 6). The neoliberal pharmaceutical value regime covers the regulations that turn drugs into objects of financial accumulation (such as the Orphan Drug Act of 1983, discussed in Chapter 2), but it also includes broader institutions (e.g. the dominance of US patent law, also discussed in Chapter 2). Because a 'regime' designates a political reality, a 'value regime' incorporates those organizations tasked to defend it, such as the lobbies through which the industry promotes its interests (in Europe, for instance, the European Federation of Pharmaceutical Industries and Associations, EFPIA), but it also involves a broader plurality of actors. Like a 'political regime', which has various arms that operate largely autonomously (e.g. the justice and executive powers), the value regime comprises numerous types of actors. Some of these actors directly or indirectly contribute to upholding the regime (e.g. generic drug manufacturers, 'innovative' pharmaceutical firms, biotech companies, some policymakers, and intellectual property lawyers) while other actors contest the regime—civil society fighting for access to medicines, governments in lower- and middle-income countries (LMICs). Some groups of actors are divided or change positions depending on the issues at hand (regulators, patient groups, healthcare providers). The balance of power between these sets of actors is a defining feature of the current regime, hence our narrative throughout the book will keep both 'blocs' of the current regime in close view.

What makes this a *value* regime is that the balance of power between the 'blocs' also determines what value is created within the regime, how it flows through it, and who gains from it.[1] Our starting point is that the neoliberal pharmaceutical value regime generates tensions between the value flows that are directed towards financial accumulation and those directed towards patients' health, and that, unresolved, these tensions will drive momentum towards 'peak'—the moment when value is either exhausted or so unevenly distributed that the regime collapses. From the days of the HIV/AIDS crisis

[1] We are conscious of the many debates around the notions of 'value' and 'biovalue' that have taken place in the sociology of health and medicine over the past two decades. We refer interested readers to previous works that have contributed to or outlined these debates, including Waldby (2002), Novas (2006), Birch and Tyfield (2013), Mittra (2016), Sunder Rajan (2017), and Roy (2023).

in the early 1980s to the 2020s and the controversies around COVID-19 vaccines, the neoliberal value regime (and the way it organizes the interactions of governments, corporations, investors, and patients) has provoked both behind-the-scenes and open contention and social unrest. We argue that these tensions and successive crises find their origin in the deeper conflict between the two fundamental value flows at the heart of the neoliberal value regime: financial accumulation and health. In other words, a conflict between creating economic and public good, serving shareholders and serving patients, between commerce and societal wellbeing.

When they shaped the institutions that came to constitute the neoliberal pharmaceutical value regime over the course of the 1970s and 1980s, corporate executives and policymakers in high-income countries (HICs) had an overriding objective in mind: to make the pharmaceutical industry profitable. This accumulation motive can simply be defined as embedding pharmaceuticals into the logic of 'more' (Beckert 2020). More return on investment, more shareholder payback, more expansion into formerly 'non-marketized' territories—even the 'invention' of more diseases—and more penetration into these markets. Pharmaceuticals are the most profitable sector in terms of share buybacks and dividend pay-outs when compared to net sales (Valeeva, Klinge, and Aalbers 2023). Pharmaceutical corporations are key to the overall profitability of invested capital, and major capitalist countries—including the United States, the United Kingdom, Germany, and Japan—actively promote the interest of 'their' pharmaceutical sectors. As emphasized by previous critiques, the accumulation motive of the pharmaceutical industry is sometimes sustained through dubious practices. Facing the patent expiry of its multi-billion dollar antidepressant drug Prozac in mid-2001, pharmaceutical multinational Eli Lilly succeeded in receiving US Food & Drug Administration (FDA) approval and a seven-year patent extension for a drug called Sarafem—a rebranded but chemically identical version of Prozac for a heretofore unknown illness called 'premenstrual dysphoric disorder', an illness Lilly had put a lot of energy into promoting with healthcare providers, regulators, and patients (Finch and Geiger 2011). Even more egregiously, companies such as Purdue Pharma pushed the market expansion for highly-addictive opioids into light and moderate pain patient segments, creating a devastating opioid epidemic in the United States and other countries (Keefe 2021)—all for the sake of capital accumulation, or 'more is more'.

The following chapters will demonstrate how pharmaceutical patents were turned into financial assets to be traded and capitalized by investors. They will illustrate how the accumulation motive directly affects patients through

increased prices or a dearth of investments in markets deemed not lucrative (tropical diseases or antimicrobials are prominent examples). As the pharmaceutical sector grows, it becomes harder to sustain the level of profitability enjoyed over the past decades. The list at the start of this chapter demonstrates how quickly the prices of innovative drugs have risen to keep financial value flowing in a sector that has picked all low-hanging fruit. They have, in fact, increased so dramatically that innovative medicines are becoming increasingly unaffordable to patients and health systems all over the world, including those in the highest-income countries. While until the 2010s, Western European countries had access to most innovative drugs quickly, many of these countries have now started to restrict access to the latest innovation to some patients for cost reasons. This situation is not only a major concern for patients, but for the pharmaceutical sector as a whole. As pharmaceutical corporations increase their prices to meet the demands of their investors, the ability of the latest drugs to find paying customers is increasingly in question.

Unlike many previous studies of the pharmaceutical industry, however, we also and in parallel draw up a history of contestations against this value regime. When profitability concerns override such motives as access or affordability, financial accumulation enters in direct contradiction with the other fundamental value flow of the neoliberal value regime: health. The institutions buttressing the current regime were built to organize pharmaceutical innovation in view of maintaining people's health. This need did not only arise from a desire to contribute to the well-being of the population. Pharmaceutical innovation is needed to prevent social unrest. It is also needed to maintain a healthy workforce. It is needed, as Cold War theoreticians argued (Tobbell 2011), to give legitimacy to our economic system as a whole. It is no exaggeration to say that without a broadly healthy population, capitalism cannot be maintained.[2] Graham Dutfield has entitled his comprehensive history of the pharmaceutical industry 'That high design of purest gold' (2020), after a tribute to medicine's advances on the façade of an ancient church in London. This inscription reminds us that pharmaceuticals do not only allow investors accumulate capital; their fundamental purpose is to cure or alleviate disease. The chemical molecules that Sovaldi pills contain, for instance, cure patients of hepatitis C with remarkably few side effects. Millions of people infected by HIV now live long, healthy lives by taking one antiretroviral tablet a day, which suppresses the virus to the extent that it cannot even be transmitted any longer. Other examples abound.

[2] This was the fundamental realization that led to Bismarckian social welfare systems.

Yet, if it is in competition or in conflict with the accumulation motive, this health motive will often be left wanting. After all, it does not take a *completely* healthy population to maintain capitalism and make money—on the contrary (Adler-Bolton and Vierkant 2022; Roy 2023). It is not surprising, then, that many civil society movements have been fighting the industry precisely at times ferociously to direct value flows towards health and away from financial accumulation. They have been struggling, for instance, over the amount, direction, and objectives of pharmaceutical innovation and over who should gain access to this innovation and at what price. From HIV/AIDS activists to recent movements concerning COVID-19 vaccine equity, from patient organizations focused on rare diseases to collectives of victims of Purdue Pharma and its criminal marketing strategy, pharmaceutical innovation is the object of powerful social contention (Brown and Zavestoski 2004; Geiger 2021). Our volume traces this parallel history of pharmaceutical contestation alongside the responses and rebuttals this activism has encountered from those benefitting from the neoliberal value regime.

To comprehensively trace the parallel contemporary histories of the pharmaceutical industry and its discontents, we need to follow a third set of actors: state and supra-state actors.[3] Governments tasked to oversee the two contradictory value flows of capital and health encounter increasing economic challenges in providing for the health of their population. While there is no doubt that, on average, we are healthier than many previous generations, today's society (or at least those of us who live in high-income countries) is also likely to be the first to have a shorter life expectancy than their parents. Lifestyle-related diseases are rampant. The conquest of those diseases that have yet to find a cure requires more and more sophisticated and targeted pharmaceutical innovation. Of the around 6,000 diseases classified as 'rare',[4] only about 5% have US Food and Drug Administration (FDA)-approved treatments (European Commission 2020a). While the health return on pharmaceutical investment for these diseases tends to be sky-high (they often represent life-saving or life-altering therapies), their potential for financial accumulation tends to be low due to limited market

[3] We acknowledge that a fourth set of actors is crucial to this history: physicians and other healthcare providers - those who hold medical expertise and who, accordingly, are vested both with expert and gatekeeping power. If this fourth set of actors is less present in the current volume, it is not due to our lack of awareness of their importance, nor is it a lack of interest in exploring their role in the coalitions we trace. The reasons are different: there are fewer secondary sources that would have allowed us to confidently place physicians within the long-wave movements illustrated in this volume, and they were not the primary target of our empirical studies either, which focused on civil society-driven social movements. We hope others will fill this gap and situate medical experts in the history we present in this volume – and in the future(s) we project.

[4] In the United States, rare diseases are classified as those affecting 6.25 out of 1000 citizens (or less), in Japan, 4 out of 10,000 and in the European Union (EU) less than 5 out of 10,000; and/or diseases that are not profitable but life-threatening.

size. This is why innovation in these categories often attracts special tax benefits or other state incentives—but these incentives, in turn, encourage some firms to 'game' the system, for instance, by 'salami slicing' more prevalent diseases into smaller 'rare'-sized target groups (STOA 2023). At the other end of the spectrum, where mass market medicines and so-called blockbusters sit—antibiotics, cholesterol drugs, antidepressants—a lot of this lower-hanging fruit of pharmaceutical innovation has run out of patent protection, and while generic medicines are cheap to produce, true innovative advances are harder to make and less often pursued. As a result, creating health value flows has become more research- and labour-intensive and more costly than in previous periods. In turn, the scientific and the economic processes sustaining these value flows have undergone huge transformations in the past decades, changing through three main phases, from the primarily chemical industry of the 1960s to the biopharmaceutical industry of the 1990s and 2000s to the personalized production systems of today's pharmaceutical sector (Mittra, 2016; Dutfield 2020). Yet, health outcomes of new pharmaceutical medicines are often more incremental, as they target diseases that affect small subsets of the population and result in uncertain improvements to individuals' health—despite the ever-increasing data and computing power that is currently poured into 'personalizing' medical treatments, including through Artificial Intelligence (AI). In essence, then, governments frequently end up paying more money for less and less improvements in their citizens' health.

Overall, the book builds on the argument that there is a fundamental contradiction at the core of the neoliberal pharmaceutical value regime: the conflict between the two value flows—financial accumulation and health. This fundamental conflict, we argue, has been driving the history of pharmaceutical markets and struggles over pharmaceutical innovation in the past four decades. While these conflicts have been more or less successfully neutralized by institutions that have propped up the neoliberal value regime, we argue that the contradiction between financial accumulation and health is becoming increasingly untenable: we are fast approaching 'peak pharma'.

The Three Cs: Crises, Coalitions, and Contention

We understand 'peak pharma' both as an empirically undergirded postulate that we pursue throughout the chapters of the book and as a normative call to arms for healthcare providers, state actors, civil society, and academics to help prepare a transition into a more positive value regime where health

trumps financial concerns. The main challenge of this volume, then, is to explain 'peak pharma' not simply as an endogenous development, that is, as an industry that follows some natural dynamics or path dependency, but rather as something that can be both delayed and precipitated depending on the coalitions that rally around the sector, supported by its institutions and by specific socio-material arrangements. To trace these dynamics, we follow a Polanyian logic to explore this peak as the result of a 'triple movement': first, an industry's accelerating financial accumulation; second, the crises that this acceleration provokes and the resulting emergence of countermovements and contestations; and third, the political and institutional responses that interact with the industry and its discontents and that seek to balance out these contestations. In observing these three sets of actors—an accumulation-driven industry, its discontents, and the regulators who rule between these two opposing forces—we map the crises that feed the contestations of an industry and the coalitions that emerge on both sides of the accumulation-versus-health dynamics.

In the last forty years, the world has gone from one public health crisis to the next, yet these crises seemingly have not majorly rattled the neoliberal value regime in pharma. The HIV/AIDS crisis in the late 1990s, the hepatitis C and the opioid crises of the 2010s, and the COVID-19 crisis in the early 2020s are examples of major public health emergencies that have put pressure on the industry. As we show in the book, these crises have had an ambivalent impact on the neoliberal value regime. They epitomized the conflicts between financial accumulation and health, revealing in stark clarity how the structures of the pharmaceutical industry pit the accumulation motive of its investors against the health of patients. Yet far from leading to a wholesale questioning of these structures, some crises have left this regime unaffected, while others have even strengthened it, providing the industry with unprecedented profit opportunities and allowing them to rack up billions in profit: during the COVID-19 pandemic, for instance, nine new pharmaceutical 'COVID billionaires' were born (Geiger and Gross 2024). In fact, as Sunder Rajan (2012, p. 338) highlights, crisis has become a structural feature of the pharmaceutical system: 'left to itself, capital cannot set itself limits and hence ends up putting its own institutions in crisis'. In the neo-Marxian framework that Sunder Rajan follows, 'crisis' is part of the capitalist regime because the profit rate of capital will fall over time, pushing capital to 'restlessly seek employment outside of the productive economy' (Potts 2011, p. 463). This speculative tendency helps explain the increasing financialization of formerly 'productive' industries such as pharmaceuticals, which are now seen by many as 'investment banks with a pill manufacturer

attached' (Dearden 2023). It also helps us understand why, every time a major public health crisis happens, contestations emerge as the industry attempts to turn the health crisis into an even more profitable accumulation opportunity.

One main argument in this book is that the neoliberal value regime is supported by coalitions of actors that have successfully implemented delaying tactics to prevent these crises from escalating towards a 'peak', where the contradictions between accumulation and health motives are so apparent that the system either collapses or is overthrown. We detail the formation and evolution of these coalitions of actors in the following chapters. Even though these coalitions differ depending on the region and local context, one might already think about its most obvious and enduring members: investors in multinational pharmaceutical corporations benefitting directly from their financial accumulation, their ecosystem collaborators such as biotech startups, corporate executives who rule over such corporations, patients from HICs who, until now, have been able to gain access to the medicines marketed by such corporations, and policymakers who have helped set up and sustain the main institutions of the neoliberal value regime. When crises hit, these coalitions have tended to 'buy time' for the neoliberal value regime by finding temporary or more permanent expedients to enable it to weather the storm.[5] There have been obvious ways in which the industry and its lobbies 'bought time', for instance, through the evergreening of its most lucrative patents, such as the example of Prozac/Sarafem mentioned earlier. Philanthropic and some civil society organizations also indirectly and perhaps unwittingly 'bought time' for the industry by stepping into some of those places left deserted by an industry focusing on its accumulation motive, for instance, tropical diseases. Finally, governments bought time for the regime by pouring public funding into neutralizing the conflict between accumulation and health: the public subsidies for COVID-19 vaccines would be one example; tax benefits for rare disease innovation would be another.

Far from being stable, however, there are many indications that this coalition is actually crumbling. While the same institutions still rule the production and circulation of medicines—and therefore determine who will benefit from the pharmaceutical regime—as accumulation increases, the circle of those who benefit from the regime contracts. Concretely, the industry's

[5] This concept of 'buying time' was initially coined by Wolfgang Streeck (2014) to designate a situation when policymakers would use private and public debt to temporarily avoid the opposition between profit and democracy to result in major unrest in Western countries. It was taken up by Nancy Fraser (2016) in her work on the contradiction between capital and care: she showed how political regimes have attempted to buy time in this contradiction by externalizing care activities globally.

need for accumulation pushes it to demand higher and higher prices for medicines, which in turn excludes new populations (including in countries whose national health services or insurance had previously been able to provide relatively unrestricted access to medicines). This pushes not only excluded patients but also some state actors into a more contentious stance. The contraction of the coalition buttressing the pharmaceutical regime is just the beginning of the story: as the circle of beneficiaries from the pharmaceutical regime reduces in volume, discontents multiply, and further contestations emerge.

Another of the main arguments of this volume, accordingly, is that while the pharmaceutical industry has been very adept at turning health crises into profit accumulation by finding ever-more ingenious ways to expand (into new illnesses, new treatments, new patient groups, new geographies, new ways of financing, new ways of protecting their innovations from competition), helped by regulators in terms of 'buying time', it is reaching a point where further delay is becoming impossible. Left to its own devices, that is, without major contestation, these delaying tactics may have succeeded in perpetuating a situation where the conflict between accumulation and health will generally be decided in favour of the former. But, as we will argue, while the recurring crises we have seen in the past forty years have not put much of a dent into the industry's coffers, they have cumulatively allowed those who have contested the regime not only to enlarge their own coalition but also to widen their repertoires of contention, acquiring an ever-greater set of tools and strategies to fight the regime and demand that its value flows are redirected towards health.

Adopting a Polanyian perspective helps us trace these dynamics. For Karl Polanyi (1944/2024), the increasing expansion and sway of the market economy will first create a state of social instability and crisis. This will, second, be reined in by a resurgence of solidarity and social protection, with a stronger state 'forcing the unleashed markets back into a socially confined riverbed' (Brie 2020, p. 144). Eventually, however, and as witnessed in the neoliberal ascendancy from the 1970s onwards, capital will do what capital does best: expand, leading to a new double movement over time. Recent thinkers, analysing the excesses and contestations of neoliberalism, have extended the Polanyian 'double movement' into a 'triple' or even 'quadruple' movement, including a stronger focus on a variety of (possibly contradictory) contestations that may drive different directions through which to restrain or support unbridled capital. Considering the financial crisis of 2008, the political theorist Nancy Fraser laments that civil society responded to this crisis through

a fragmented and often ineffective range of social movements (including the Spanish *indignados* and the Occupy movement). Fraser (2017) points to the emancipatory struggles that have taken place over the latter half of the twentieth century—often described as 'new' social movements, including the student, anti-racist, and women's movements—to argue that these movements do not fit the double-movement explanation of rampant marketization versus social protection. She claims that a widening out of the notion of countermovement to diverse publics is more apt to explain the variety and fragmentation of social movements we have seen emerging in the past two decades, including some more regressive ones (as those may represent the siding of an emancipatory with a market expansionist force).

This latter point is taken up by Michael Brie (2020), who argues that contestations can run along two axes: one that runs along poles of social protection versus individual freedoms and another that runs along an emancipatory versus authoritarian mediation of capital. Over the course of this book's chapters, we will encounter a similar spectrum of movements; here, it suffices to note that the notion of contestations that we will deploy does not signal a unitary countermovement dynamic, nor should it lead us to a blind glorification of all contestations against the prevailing regime. As we will see, a wide variety of groups engage in contention over pharmaceuticals—some are patients, and others are experts; some are from HICs and others from lower- and middle-income countries (LMICs); some embrace market structures while others contest them radically; some pursue an emancipatory register, others, and increasingly so, follow a deeply authoritarian agenda.[6] But there is even more to complicate this narrative and to move us away from any temptation to conceptualize two monolithic and opposing blocs of 'pharma' and its 'discontents'.[7] Countermovements can be both state-driven or civil society-driven—but they can also encompass coalitions and fractures between both (Burawoy 2015).[8] Thus, tracing these shifting and diverse

[6] In supporting the Trump administration's 'Make America Health Again' campaign, the ultra-conservative US Think Tank, The Heritage Foundation, for instance speaks of 'Big Pharma' in highly critical tones, accusing it of collusion with government agencies and enforcing a medication agenda on consumers. See for instance Chapter 14 of its Project 2025 manifesto or the health policy event of 18 December 2024, available through its website https://www.heritage.org/public-health.

[7] In fact, 'pharma' is hardly a monolithic bloc in itself, as we will discuss, with the generic arms of 'pharma', particularly those located in LMICs, at times siding with access to medicines activists.

[8] Buroway (2014) distinguishes between three 'waves' of marketization in Polanyi's sense: the first, industrialization, was opposed mainly by civil society in the form of labour mobilization; the second wave after the First World War was responded to by socialist and fascist forms of politics, respectively, with the 'state' taking on the main opposing role. In line with Fraser's assessment, Burawoy sees any effective future countermovement to the third, current wave of neoliberal marketization as a necessarily global one, that takes account of the currently most dominant form of accumulation and dispossession: knowledge.

coalitions and their repertoires of contention over time, from crisis to crisis and as the conflict between accumulation and health has become more and more acute, helps us demonstrate that contentions against the neoliberal value regime have made it increasingly harder for the coalition to buy time for the regime—to such an extent that we are accelerating towards what we call 'peak pharma'.

Peak Pharma

The peak concept designates the 'true crisis' moment when the coalition that supports the neoliberal value regime is no longer able to defend it from contention. The tension between directing value flows towards accumulation or towards health that we have described pushes the neoliberal coalition to engage in further and further delaying tactics—these tactics are costly, and they slowly contribute to shrinking the coalition. In one spectacular illustration of these trends, governments from HICs that were previously part of the neoliberal coalition decided to adopt a critical stance against the neoliberal coalition in 2019 when they rallied behind the so-called 'transparency resolution' at the World Health Assembly (Geiger and Bourgeron 2023; Bourgeron and Geiger 2024). Unsettled by the unsustainably high prices of new medicines, governments of HICs, such as France, Italy, Spain, and Norway, decided to rally against the pharmaceutical industry by demanding new market structures that would moderate such prices. More crucially, it signalled the existence of significant cracks in this coalition. This means that the set of regulations, institutions, and groups that used to organize the circulation of pharmaceutical medicines globally has become more and more conflictual. In our view, peak pharma occurs when this coalition contracts to the point where the neoliberal value regime is no longer defensible.[9]

[9] Speaking of 'peak' in this way requires a brief excursion into fossil fuels, where this concept has been deployed long before we have adopted it for the pharmaceutical sector. Scholars in environmental sciences have been talking about 'peak oil' as the moment when fossil-based capitalism will be crippled by the increasing rarefaction of its raw material (Bardi 2009, 2019). 'Peak', in their parlance, designates a state where a given and socially significant resource becomes rarer, more difficult to extract, and therefore more expensive, to a point where the balance of costs and benefits reaches a tipping point. With so much of the world's industries and societies still heavily dependent on fossil fuels, 'peak oil' would also signal the end (or at least a significant disturbance) of an entire way of living and of doing business. Bardi (2009, 2019) explains the history of 'peak oil' in two influential articles, written a decade apart. Popularized as the 'Hubbart curve' in 1998, the notion of an oil peak refers to the moment when a formerly abundant and cheap-to-produce resource becomes increasingly expensive to produce; eventually, production starts to decline and financial investment is fleeing causing sharply decreasing rates of return. While predictions of when this peak may take place differed widely between analysts, most of them expected it to occur in the first couple of decades of the new millennium. Yet, the fossil fuel industry and its allies have been rather adept at 'buying time': the declining return on investment and rarefication of conventional oil resources

This situation amounts to an existential crisis for the current neoliberal value regime that can, in our interpretation, only result in a regime overhaul. The ultimate aim of this book is to investigate the epochal shift in the pharmaceutical regime that we contend is just ahead of us, and to conjecture what may come post-peak. In a dystopian scenario, the regime might be replaced by an even worse version of itself, which has abandoned all pretence of maintaining a balance between financial accumulation and health and works purely to the benefit of the former. We will call this regime the 'pharmafeudalist' regime (see Chapter 11). In a more optimistic scenario, the accumulation motive would be jettisoned altogether, and the pursuit of the collective good via health value flows would be the North Star of the new regime, which we will call the commons-based value regime (see Chapter 12). We hope that it has become clear by now that our intent is not to leave off at 'paranoid critique' (Cord 2022). Rather, we seek to highlight this existential crisis as an opportunity for transformation. What, we ask, happens to pharmaceutical accumulation when 'business as usual' is simply no longer possible? Is there ever a point where the neoliberal value regime can no longer repair itself? Once 'peak' has truly system-altering consequences, what social and material factors may help shape what comes next? Who will be listened to in shaping what comes post-peak? And what can civil society and policymakers do to drive this new political economy of health?

To understand these processes and conjecture possible futures, political economy scholarship and Polanyian perspective outlined above helps us to draw up the 'big picture' movements that the pharmaceutical industry, civil society, and state actors are part of. This thinking is informed by significant scholarship in the context of financialization and neoliberalism. However, to see how these dynamics play out on the ground, we draw upon a second theoretical inspiration, from Science and Technology Studies (STS) scholarship and particularly STS-inspired thinking in the domain of pharmaceutical innovation, markets, and valuation. The conjuncture of these two intellectual traditions leads to a number of productive tensions for this volume: between *longue durée* societal processes and highly local socio-material arrangements; between a more normative ambition and an

has made the search and development of nonconventional oil sources such as shale, deep-sea or arctic oil more attractive, and this has been supported by governments unwilling to tackle needed changes away from their dependence on fossil fuels. Clearly, capitalism is a highly resilient entity with rather ingenious ways of reinventing itself. But like in pharma, peak oil is still looming large, once these delaying tactics have run dry (literally).

analytical-descriptive one; between a focus on the political-economic structures that buttress the pharmaceutical regime and the technologies of politics and economy that are used to perpetuate and contest it; and between the potential for global contestation and overthrow of the pharmaceutical system and local specificities that may decelerate global ambitions.

This dual institutional and socio-material gaze is vital for our current concerns. Clearly, those institutions that form the political economy of pharmaceuticals matter. For the longest time, states, and particularly those HICs that are home to a dominant pharmaceutical industry base, have added fuel to the fire of pharmaceutical marketization through their liberal economic policies. In some cases, states have even disempowered themselves to protect their indigenous pharmaceutical industries (Bourgeron and Geiger 2022a). The neoliberal pharmaceutical value regime was constituted through trade agreements, international institutions, national institutions, and business groups that organized the production and circulation of drugs at a global scale but with highly unequal consequences in different regions. At the same time, attending to the socio-material nature of pharmaceuticals and how what is 'valuable' is determined and negotiated between different groups of actors in various market and non-market settings means that these objects remain open to other models, other market configurations, other 'regimes', other ways of directing these value flows (Dussauge et al. 2015; Geiger and Gross 2018). When it comes to the shift from biopharmaceutical drugs to personalized medicines, for instance, the organization of this new space relies upon socio-material factors that have not yet been fully determined. Given how costly these drugs are, they could very well lead to higher prices, a higher level of accumulation, and a supercharging of the exclusionary trends of the pharmaceutical sector—we play out this particular scenario in our 'dystopian' pharmafeudalist perspective of Chapter 11. But the materiality of these new drugs is also ambivalent: given how personalized they are, they do not match the usual criteria for drugs to be patented particularly well, and this ambivalence could open up alternative routes. It could very well be that these drugs would lead to the weakening of multinational pharmaceutical companies' grasp over innovative medicines and to the emergence of new ways of organizing, less inclined towards accumulation—this is part of the 'utopian' scenario of a commons-based value regime that we lay out in Chapter 12. Our ultimate aim, then, is to signal this socio-material ambivalence, describe what is at stake in the conflicts that we are witnessing in today's pharmaceutical markets—and the reason why so many activists, lobbies, policymakers, and intellectual mobilize around it—and trace alternative future paths.

The Provenance and Structure of This Book

This book emanates from a large European Research Council-funded project led by Susi Geiger and entitled MISFIRES, which set out to trace how healthcare markets are shaped through contestations. The titular 'misfires' signals our ambition to trace market failures in pharmaceutical markets not as something that is external to the market and should be taken care of by government actors, as neoclassical economics may suggest. Instead, these misfires can be seized by civil society and state actors themselves to challenge pharmaceutical markets to do better—better, that is, not in terms of shareholder value but in answering to the needs of those who are directly affected by these markets and their misfires. Over the course of six years, we pursued a large-scale empirical and theoretical exploration into how markets may be innovated through challenging them through their own overflows. Many of the insights of the current book stem from these explorations and other projects that we conducted simultaneously and since; many other insights were contributed by the works of colleagues who have inspired and 'thought with' us along the way, which we have synthesized together with our own materials and evolving thinking. As MISFIRES' methodology was also resolutely participatory, it afforded us to make very valuable and enriching experiences as 'academic activists', working with groups such as Access to Medicines Ireland and alongside many civil society organizations who are attempting to prefigure a new political economy of health. For the sake of the argument's flow, we decided not to deploy significant amounts of empirical data in this current volume, though we do, on occasion, quote some of our research participants. Our Appendix provides a fuller overview of MISFIRES' empirical cases, methods, and outputs, which we also reference as we move through the book's chapters.

Making an argument for an acceleration towards 'peak' based on tracing our three Cs—crises, coalitions, and contestations—requires us to proceed broadly chronologically with our diagnostic exploration. As we trace the most significant events and turning points of this history along the broad, often-dialogical, and always-intertwined actions of industry, civil society, and government, we are reminded of a triple-helix with three interlinked strands. As we explained above, we are by no means assuming that these three strands appear as three unified blocs of actors who react to two other 'blocs'. In reality, zooming into each of the three strands would show an intricate fabric of substrands, of coalitions and oppositions, of movements and countermovements within each. In the composition of this book, this also means

that while different chapters tend to have a focus on one type of actor, we take into account as much as possible the various interweavings and shifting dynamics within and between the three strands of our triple-helix over the course of the book.

Following this introductory chapter, we start our exposition with Part I (Chapters 2–4), exposing how the neoliberal value regime was constructed and rapidly tested during the 1980s and 1990s. In Chapter 2 we explain the unleashing of the pharmaceutical market's accumulation motive through neoliberal reforms to medicine pricing systems, the privatization of state-owned pharmaceutical companies leading up to and in the early 1980s; this is the moment when, we argue, the neoliberal value regime as we now know it has first been shaped.[10] We list five features that we see as characteristic of this regime: (1) the multinationalization of pharmaceutical firms; (2) the increased outsourcing of manufacturing and clinical trials; (3) the assetization of IP; (4) an increasing price dispersion between generic and high-end medicines, with a mass market of blockbusters in the middle; and (5) the rapid and seemingly unstoppable financialization of pharma firms (see Chapter 2). Yet, as Chapter 3 displays, as soon as this regime took fully shape, it faced its first major public health crisis and was tested through a wave of open and, at times, vociferous contestations in the HIV/AIDS crisis in the 1980s. While this is a well-known and often told story, Chapter 3 highlights the templates of healthcare activism and the repertoires of contention that activists in ACT UP and other civil society organizations forged, some of which have influenced the face of healthcare and patient activism until today. Taking up the historical timeline from the early 1990s, Chapter 4 demonstrates that while this initial crisis seemed to have been alleviated with the emergence of antiretroviral drugs, in reality, it only shifted geographies: from the mid-1990s, the geographic expansion of the neoliberal value regime model was enabled through the consolidation of global patent rules through the TRIPS agreement. This coincides with the height of the global HIV/AIDS crisis and led to the first consolidated mobilization of voices against high prices and patents: it was the birth of the transnational access to medicines movement as we know it today (see Chapter 4).

This period of sustained contestation settled down somewhat after the Doha Declaration of 2001. This Declaration, we argue, also instated a new historical phase, covered in Part II (Chapters 5 and 6), where collaborations

[10] For a history of pharmaceuticals that reaches further back in time, we refer to Graham Dutfield's (2020) excellent volume *That High Design of Purest Gold: A Critical History of the Pharmaceutical Industry 1880–2020*.

between actors were conducted in a *doux commerce* perspective: While many LMIC governments continued to grapple with the aftermath of TRIPS and explore just what its flexibilities and exceptions allowed them to do, in HICs, as Chapter 5 explains, philanthrocapitalists and their foundations succeeded in 'buying time' for the regime by filling the gaps it had left, particularly in global health—but always on their own terms and never in contention with the prevailing regime. At the same time, carried by an era of third-way politics that preferred private governance to market regulation, many pharmaceutical firms sought to enlarge their own coalition by ostensibly joining patient groups in a 'war on disease', for instance, through patient access schemes. Yet, underneath this friendly face of corporate citizenship, scandals were brewing—the opioid crisis likely being the most egregious—which would soon see the light of day and, in some cases, courtrooms. As Chapter 6 highlights, this was also the time when many access to medicines activists agreed to work with the regime rather than against it to redirect at least some of its value flows towards alleviating the market's worst misfires, particularly in global health. Voluntary private governance mechanisms such as public–private partnerships, the Access to Medicines Index, and the Geneva Medicines Patent Pool (MPP) all emerged during this decade of 'market repair', and while the various repair efforts certainly succeeded in rectifying some of the regime's many misfires, they also, arguably, allowed it to persist without major challenge.

Moving into the 2010s with Part III (Chapters 7 and 8), we accelerate towards peak, with pharmaceutical pricing spirals reaching heights previously thought impossible. Chapter 7 charts how, supported by policy incentives, medical innovations around precision and personalized medicine started to proliferate and renew concerns about medical exclusion. Value-based pricing and health technology assessments became component parts of a new mode of technocratic market governance that created a great deal of contestation around the question of just how to pin down 'value' in a system that increasingly suffered from the weight of its own accumulation need. Slowly, however, some of the misdemeanours of an industry left to its own governance in the previous periods emerged into the public conscience. Ever-increasing prices and the resulting need to ration innovative and expensive medicines to some patient groups in HICs resulted in ambiguous responses by their governments, as we trace in Chapter 8. On the one hand, they continued to pursue what we characterize as 'gunboat diplomacy' by doubling down on patent protections for their industry in so-called TRIPS Plus trade agreements. On the other, the medicines price spiral also eventually

led to the emergence of the figure of 'state activist' not only in LMICs, where it has existed for some time, but also in the heartland of pharmaceutical accumulation (see Chapter 8).

With Part IV (Chapters 9 and 10), we finally turn to the COVID-19 pandemic and into the 2020s—and to a regime that finds itself at a crossroads. This pandemic crisis has had a decisive effect on the broader acceleration towards the peak that we diagnose, as it manifested the power that the pharmaceutical industry holds over democratically elected institutions and exposed the many inequalities within and across nations that it creates, for all to witness (see Chapter 9). Chapter 10 argues that the apparent triumph of the industry and the neoliberal value regime from the COVID-19 pandemic should not lead us to ignore continuing discontents. The industry is now faced with major crises brewing, which relate to its continuing ability (or willingness) to serve public health needs, the confidence various publics have in the industry, and most crucially, its ability to continue accumulating value. This has led many critical voices from academia and politics to start demanding a radical change of course—a change of course that would lead us from eternal market repair towards imagining a whole alternative pharmaceutical economy.

We round up our diagnostic exposition with more normative reflections in Part V of this book: projecting what might follow post-peak, we sketch two scenarios. The first is a dystopian one, in Chapter 11, where the alienation and exclusion the system has fostered are being driven to an extreme through developments in so-called personalized medicine. Following recent authors who have diagnosed 'technofeudalism' in Big Tech, we call this dystopian vision the pharmafeudal regime. Our second scenario, sketched in Chapter 12, is a decidedly more optimistic, dare we say utopian one, where niches of alternative pharmaceutical economies—for instance, through open source innovation or public R&D—are systematically supported and, over time, come to represent a true alternative regime. This regime, which we christen the commons-based value regime, is not just based on an overhaul of pharmaceutical innovation and distribution. It is embedded in a much larger reimagining of how health value flows can be situated at the heart of policymaking: not simply yet another value regime, this is a new political economy of health, a system that truly focuses on its citizens' wellbeing and that seeks to support this in whatever way necessary, through pharmaceuticals or through other means of maintaining and restoring citizens' health. Our final chapter, Chapter 13, accordingly, closes this book with a set of recommendations for policymakers, activists, and academics interested in fostering such an alternative political economy of health.

Epilogue

Even though we argue that the current pharmaceutical regime is accelerating towards its peak, it would be a mistake to rejoice too early. The exhaustion of the neoliberal regime does not necessarily lead to the common ownership of innovative drugs that many activists have been calling for over the past few years. When the circle of its beneficiaries decreases, a regime can collapse—but it can also reinvent itself by acquiring new authoritarian traits and deploying new enforcement technologies. The debate around the COVID-19 intellectual property waiver epitomized these tensions: are we witnessing the end of global exclusion from innovative pharmaceutical drugs, or are we on the edge of a renewal and expansion of this exclusionary trend? Worst case, are we seeing an increasing weaponization of pharmaceutical knowledge and production facilities by traditional and emerging powers with imperial ambitions? And zooming out even further from the political economy of pharmaceuticals, how will its dynamics be affected by the current geopolitical shifts that move the tectonic plates upon which the entire neoliberal edifice has been built? Are we effectively not just nearing 'peak pharma' but a much broader peak, which will change society as we know it in fundamental and as of yet unpredictable ways and which, some commentators say, will see us move back into the dark ages of some sort of feudalism (be that tech-, pharma- or cyber-)? These are the broader political questions involved in our diagnosis and discussion of 'peak pharma', which we can only point towards as we close this introductory chapter and move on with our substantial concerns.

Despite everything, we choose to conclude optimistically: for us, the pressure on healthcare systems and the level of global health inequalities make it increasingly likely that the current pharmaceutical regime will soon yield to a new political economy of health. We are heartened by the fact that the contestations around this regime have shifted from focusing on the repair of the market's worst misfires towards imagining fundamental structural alternatives across a much broader social and political spectrum than previously thought possible. If, with the current volume, we make a small contribution towards spreading this new narrative of the political economy of pharmaceuticals, it will have achieved its desired objective: highlighting that things *still* can be otherwise—and better—despite the many apparent signs to the contrary.

Peak Pharma. Susi Geiger and Th00E9éo Bourgeron, Oxford University Press. © Susi Geiger and Th00E9éo Bourgeron (2025). DOI: 10.1093/9780191993626.003.0001