1 INTRODUCTION

Everyone has a limit. Every budget has an end point. Although sellers would love to raise prices continually, it doesn't take fancy economics to know that, at some point, the money runs out. Why isn't that basic principle working as expected in the pharmaceutical industry? Instead, drug prices are rising continually and reaching astronomical levels, with no end in sight. In May 2018, analysts reported that a company is contemplating a US$1.5 million price tag for its new hemophilia cure.[1] (The current hemophilia therapies already cost an astounding $580,000–800,000 per year.[2]) Along the same lines, Spark Therapeutics' cure for a rare form of blindness will cost $850,000,[3] rivaling Novartis' planned $475,000 price tag for its Car-T drug Kymriah.[4]

Even outside the eye-popping headlines, prescription drug prices across the board have risen to an alarming and puzzling level. A government inspector general's report found that the high cost of brand medications for common conditions (diabetes, high cholesterol, and asthma) were the true problem for patients on Medicare.[5] In fact, pharmaceutical companies have raised the prices most sharply for commonly used medications such as these.[6] Similarly, an analyst report concluded that in 2016, the average price for a set of specialty drugs known as "orphan drugs" was $140,000 a year and the average price of ordinary drugs was almost $28,000 a year.[7]

The list price of drugs tells only part of the story, given the many rebate and discount processes that exist within the industry.[8] Nevertheless, real spending for drugs is rising as well. According to the Health and Human Services Inspector General's report, even after accounting for rebates, Medicare spending for branded drugs still rose 62 percent between 2011 and 2015.[9] Worse yet, the department responsible for Medicare and Medicaid projects that the increase in

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national prescription drug spending will more than double in 2018 from the prior year's significant rise.[10] In 2017, this increase in spending outpaced increased healthcare spending as a whole and the 2017–18 consumer price index (CPI).[11] All of this, despite the fact that roughly 80 percent of the prescriptions in this country are filled using generic drugs.[12]

No one would ever suggest that spending within the healthcare system follows an ordinary, rational model. The patient as consumer does not absorb the full costs of health care, given the effects of private insurance and government programs.[13] Nor does the consumer possess full information about the products purchased or the cost of choices, and even physicians may experience information gaps. Most important, the value consumers place on their own lives creates distortions that differ from buying choices in ordinary markets. Nevertheless, dollars are finite, and some limits must exist.

One can see the mounting pressure in government budgets, which are struggling to cover the cost of new, expensive medicines. If the Defense Department had treated all Veterans Administration (VA) patients infected with hepatitis C in 2015 using the breakthrough cure Sovaldi, the $12 billion cost would have accounted for 20 percent of the department's annual medical budget – just for treating a single disease.[14] With budgets in the home, patients report rationing or forgoing medications for lack of funding.[15] This is precisely the type of boundary point that should create pressure to reduce prices. And yet the rise persists.

This book analyzes and explains the phenomenon, which has puzzled modern commentators and policymakers alike. Why do drug prices stubbornly continue to rise, despite the promise of competition from generic drugs? Quite simply, the phenomenon occurs because internal incentives push every market participant toward behaviors that increase prices, knocking out the normal checks that should operate as brake-points on the market.

At the center of the system lies the highly secretive and highly concentrated industry known as "pharmacy benefit managers" (PBMs). These middle players negotiate prices between branded drug companies and those who pay the bills, arranging for rebates from various drug companies. They also establish the formularies, which are

the schedules that set the terms on which patients can access particular drugs and the reimbursement rates patients will get. The PBM middle players are supposed to act to ensure good bargains for patients and health insurers, but the reality is far from that ideal. Moreover, the system is deeply hidden. The contracts between drug companies and the PBMs are a closely guarded secret, with the details known only to the drug companies and the PBMs themselves. Government entities and the private insurers who pay the bills are not permitted to see the full terms of the contracts. Even their auditors generally are not permitted full access to the contract terms.[16] Those who pay are given periodic rebates without full information regarding the actual net pricing for any particular drugs. Markets thrive on information, and, from the standpoint of competition, such an industry design is problematic.

Despite the extreme secrecy, details have begun to seep out – through case documents (including recent contract disputes among parties), government reports, reports to shareholders, state Medicaid actions, and industry insider reports. Piecing together information from these original sources, this book presents – for the first time – a full picture of the perverse profit-taking incentive structures in the industry. The book demonstrates the way in which encouraging consumers to use drugs with higher prices operates in the interests of so many players – including doctors, clinics, hospitals, PBMs, brand drug companies, health plans, patient assistance programs, and patient advocacy groups. Payment flows are structured so that higher prices benefit the intermediaries who should be the watchdogs for the patients. Given these incentive structures, higher-priced drugs receive more favorable reimbursement treatment, and patients are channeled toward more expensive drugs.

The system also operates to support competition-free zones for pharmaceutical companies. The perverse incentive structures allow pharmaceutical companies to share monopoly profits with parties at each level of the market, maintaining their position at the top and ensuring that lower-priced competitors cannot knock them off their perch. In exchange for financial payoffs, structured in different ways to appeal to different groups, drug companies can ensure that, as lower-priced substitutes enter the market, those firms cannot gain a foothold.

The system fits within a larger framework in which drug companies block competitors – even paying them to stay off the market for periods of time. It is a win–win for everyone – except, of course, for consumers, taxpayers, and society in general.

Thus, this book describes the way in which the system creates incentives for prices to rise unchecked and for consumers and taxpayers to experience harm. The book also proposes approaches to better align incentives and analyzes the flaws in some popular proposals. Specifically, Chapter 2 of the book describes the extent of the rising prices and economic effects. Chapter 3 describes how incentive structures in place for PBM middle players and insurance companies drive prices higher. Chapter 4 explains how incentive structures in place for pharmacies, doctors, and patient groups drive prices higher. Chapter 5 explains the broader framework within which drug companies keep lower-priced competitors out, demonstrating that, in the process, companies are largely recycling and repurposing old drugs, rather than creating new ones. Chapter 6 suggests how to begin realigning the industry's incentives with society's interests. Each chapter begins with a short summary, for those who like to skip around.