



The Academic-Industry Research Network

# The Attack on US Healthcare: How Predatory Value Extraction by Public Equity and Private Equity Renders Healthcare Goods and Services Low Quality and High Cost

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## ***Why is healthcare high cost and, for many, low quality in the United States?***

The US healthcare system is under attack. Of course, for more than a decade, Congressional Republicans have been threatening to put an end to Obamacare, but they have never proposed a plan to put in its place. A far more damaging attack has been mounted by powerful shareholders, both public and private, who, going back to the 1980s, have been extracting far more value from the business corporations that deliver healthcare goods and services than these shareholders have contributed to value creation in these companies. We call this extraction-creation imbalance “predatory value extraction” (PVE).<sup>1</sup>

We identify the perpetrators as “public equity” and “private equity” to distinguish between the (typically legal) looting of healthcare corporations that are publicly traded on the stock market and those that are not traded on the stock market and hence deemed to be “private.” For public equity the main tool of PVE takes the form of open-market share repurchases—aka stock buybacks—while for private equity it takes the form of dividend recapitalizations, although in both cases the toolbox contains many other value-extracting devices as well.

There is nothing wrong per se with extracting value. The delivery of high-quality healthcare depends on paying those employees who deliver healthcare goods and services wages and benefits that balance the value that they contribute through their work with value that they extract as incomes. With a healthcare system that provides high-quality goods and services in place, government policy can then consider ways of making healthcare affordable to the US population. A system of healthcare delivery that achieves a creation-extraction balance would provide healthcare that is not only much higher-quality but, on a per capita basis, much lower cost than the system that currently prevails in the United States.

The purpose of this essay is to shine a bright light on PVE in the US healthcare system so that more resources will be devoted to systematically researching the problem and informing government policy makers, business executives, and concerned Americans what they can do about it. The problem of PVE is by no means limited to corporations in the US healthcare sector. Since the 1980s, when US business executives began to embrace a new, but deeply flawed, ideology that, for the sake of economic efficiency, a company should be run to “maximize shareholder value,” PVE has become increasingly pervasive in the US corporate economy.<sup>2</sup> By virtue of the centrality of healthcare to the wellbeing of the population, however, it is a sector in which the damage done by PVE is most apparent and its eradication most urgent. With the evidence that we present in this report, we hope to convey how PVE by public equity and private equity are operating, at times in tandem, to subvert the delivery of high-quality, low-cost healthcare in the United States.

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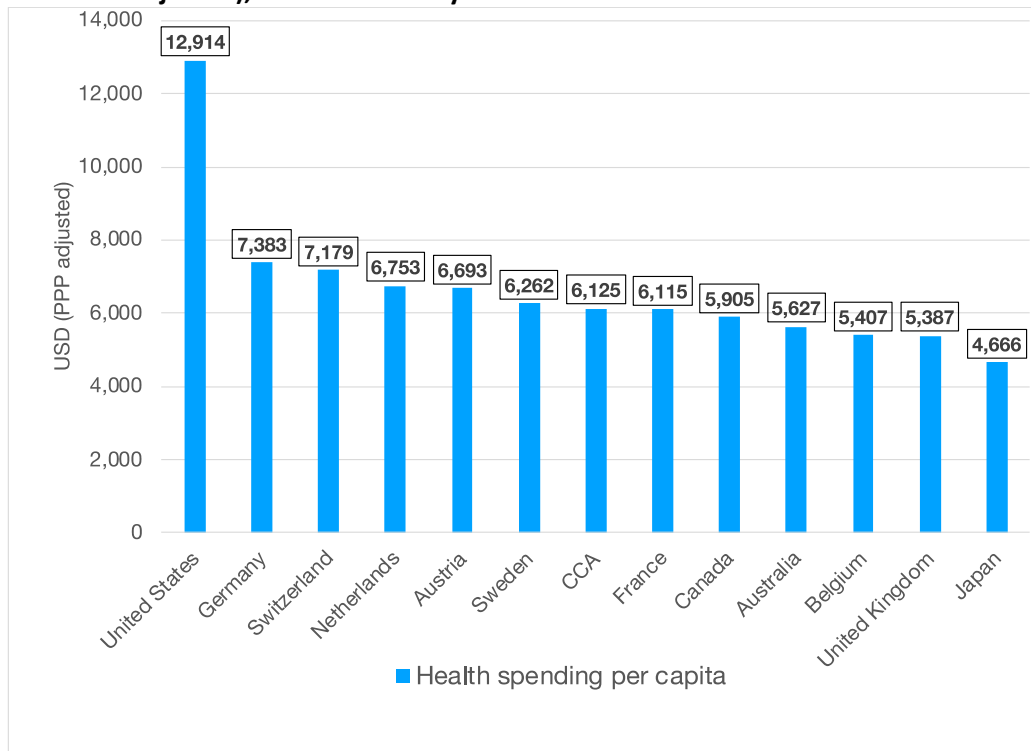
<sup>1</sup> William Lazonick and Jang-Sup Shin, *Predatory Value Extraction: How the Looting of the Business Corporation Became the US Norm and How Sustainable Prosperity Can Be Restored*, Oxford University Press, 2020. William Lazonick, *Investing in Innovation: Confronting Predatory Value Extraction in the U.S. Corporation*, Cambridge University Press, 2023.

<sup>2</sup> William Lazonick and Mary O’Sullivan, “Maximizing Shareholder Value: A New Ideology for Corporate Governance,” [Economy and Society](#), 29, 1, 2000: 13–35; William Lazonick, “Maximizing Shareholder Value as an Ideology of Predatory Value Extraction,” in Knut Sogner and Andrea Colli, eds., *The Emergence of Corporate Governance*, Routledge, 2021: 170-186.

Macro-indicators are clear on the problem of US healthcare delivery. Compared with other nations, the cost of healthcare is inordinately high in the United States. As shown in Figure 1, in 2021, adjusted for purchasing power parity (PPP), US health expenditures per capita were 75 percent greater than the second highest nation, Germany, and 111 percent greater than the comparable country average (CCA). A 2021 study by The Commonwealth Fund documents a growing gap in the cost of healthcare as a percentage of GDP between the United States and ten other high-income nations, with the US proportion rising from eight percent in 1980 to almost 17 percent in 2019 (see Figure 2).

The high level of US spending on healthcare could possibly be justified if it provided sufficiently higher-quality and/or more inclusive care than in other OECD countries. According to many quality and accessibility metrics, however, the United States performs poorly. Among OECD nations life expectancy in the United States was 78.9 years in 2019, below the average of 81.0 years; the United States had the eighth highest rate of avoidable mortality among 38 nations; and only Mexico and Turkey had a higher rate of diabetes prevalence than the United States.<sup>3</sup>

**Figure 1: Healthcare expenditures per capita, selected OECD nations, US dollars (PPP adjusted), 2021 or closest year available**



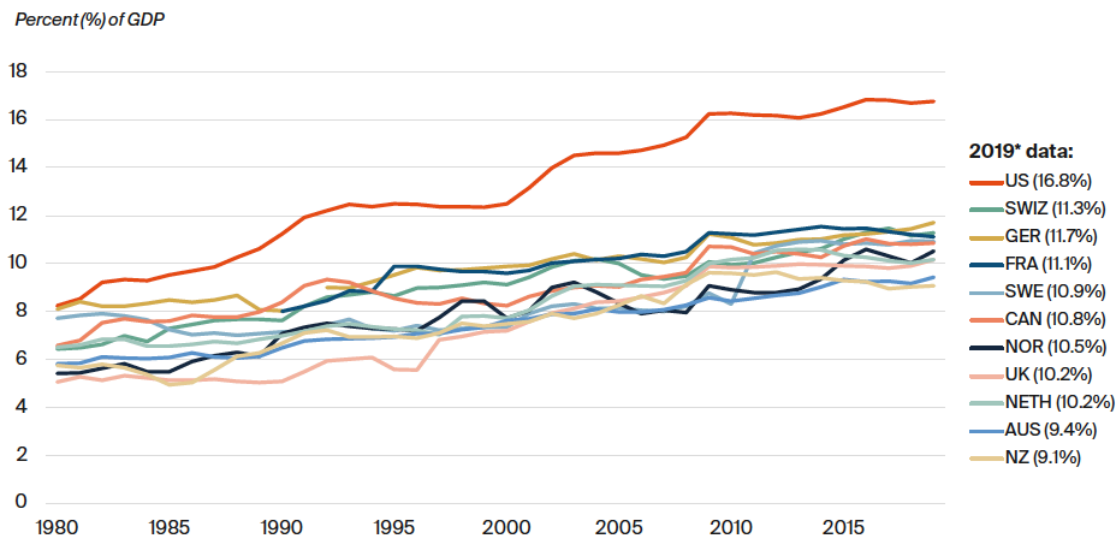
Notes: PPP=purchasing power parity; CCA=comparable country average

Source: Matthew McGough, Imani Telesford, Shameek Rakshit, Emma Wager, Krutika Amin, and Cynthia Cox, "How does health spending in the U.S. compare to other countries?"

[Peterson KKF Health System Tracker](#), February 9, 2023.

<sup>3</sup> OECD, [Health at a Glance](#), Organisation of Economic Cooperation and Development, 2021,

Figure 2. Healthcare spending as % of GDP, 11 selected high-income nations, 1980-2019



Notes: Current expenditures on health. Based on System of Health Accounts methodology, with some differences between country methodologies. GDP refers to gross domestic product.  
 \* 2019 data are provisional or estimated for Australia, Canada, and New Zealand.  
 Data: OECD Health Data, July 2021.

Source: Eric C. Schneider, Arnav Shah, Michelle M. Doty, Roose Tikkanen, Katherine Fields, Reginald D. Williams II, "Mirror, Mirror 2021: Reflecting Poorly," [The Commonwealth Fund](#), August 4, 2021.

In a report carried out by The Commonwealth Fund, US healthcare performance was worst among 11 high-income nations along four of five dimensions: access to care, administrative efficiency, equity, and healthcare outcomes. The United States only did well in care process (ranking second to New Zealand), with superior performance in the sub-metrics of preventive care, safe care, engagement, and patient preferences, while lagging in coordinated care.<sup>4</sup>

Delivering high-quality healthcare is inherently expensive, especially given the challenges of an aging population as well as novel environmental and viral diseases. But, as the world's largest economy with its high average per capita income, the United States has the financial resources to deliver high-quality healthcare to its population. It is a question of social priorities and the allocation of the nation's resources to attain them.

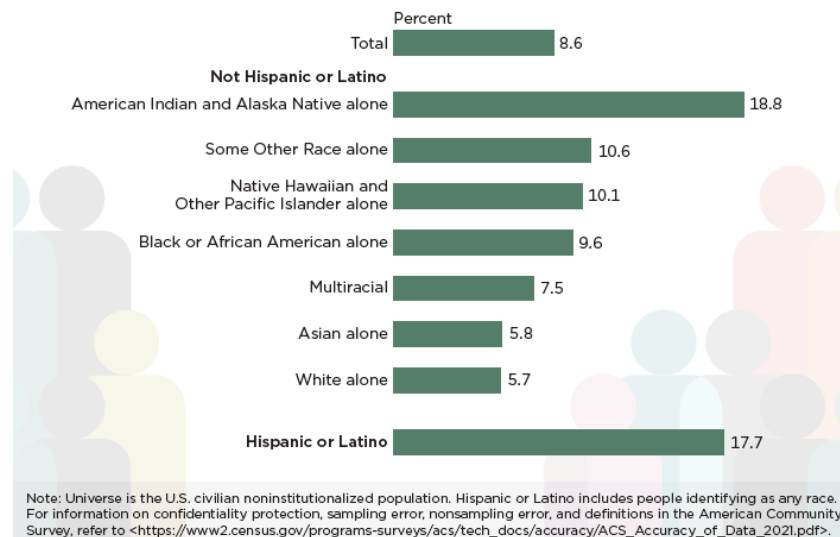
The root of the nation's inferior overall healthcare performance is income inequality that, in the United States, has become increasingly extreme over the past half century. People with low incomes and unstable employment are far more vulnerable to disease and injury than those with

<sup>4</sup> Schneider et al., "Mirror." "**Care process** includes measures of *preventive care, safe care, coordinated care, and engagement and patient preferences*. The U.S. ranks #2 on this performance domain....Along with the U.K. and Sweden, the U.S. achieves higher performance on the preventive care subdomain, which includes rates of mammography screening and influenza vaccination as well as the percentage of adults who talked with their provider about nutrition, smoking, and alcohol use. New Zealand and the U.S. perform best on the safe care subdomain, with higher reported use of computerized alerts and routine review of medications."

high incomes and stable employment.<sup>5</sup> In the United States, moreover, inequalities in income and employment are largely responsible for unequal access to healthcare goods and services.

Uniquely among the rich nations of the world, US healthcare insurance is a private contract that is generally less expensive for higher-income people because of employer subsidies and lower health risk. Medicare, Medicaid, and the Affordable Care Act (ACA) have significantly improved the access of lower-income people to healthcare insurance. With Medicare providing almost universal coverage to people over age 65, the number of uninsured households was 46.5 million in 2010, but with ACA in place fell to as low as 26.7 million in 2016. Nevertheless, in 2016, 27.9 million households remained uninsured. The rate of nonelderly uninsured was 17.8 percent in 2010, 10.0 percent in 2016, and 10.2 percent in 2021.<sup>6</sup> Race/ethnicity differences (highly correlated with income and employment differences)<sup>7</sup> remain prime determinants of access to healthcare insurance coverage, as shown in Figure 3.

**Figure 3: People without access to healthcare insurance coverage by race and Hispanic origin, 2021**



Source: US Department of Commerce, Census Bureau, "Census Bureau releases new report on health insurance by race and Hispanic origin," [Census Bureau Press Release](#) No. CB22-TPS.100, November 22, 2022.

### ***Knowledge-creating healthcare capabilities in the United States***

The irony—or, more accurately, the shame—is that the United States has not only the financial resources but also the knowledge base to be a world leader in high-quality, low-cost healthcare. As a foundation for knowledge creation in life sciences, the US National Institutes of Health (NIH),

<sup>5</sup> See, e.g., Damas Philip and Md. Israt Rayhan, "Vulnerability and Poverty: What Are the Causes and How Are They Related?" [Center for Development Research](#), Bonn University, November 2004.

<sup>6</sup> Jennifer Tolbert, Patrick Drake, and Anthony Damico, "Key Facts about the Uninsured Population," [KFF](#), December 19, 2022.

<sup>7</sup> Office of Federal Contract Compliance Programs, "Earnings Disparities by Race and Ethnicity," [US Department of Labor](#), accessed June 21, 2023; Philip Moss, William Lazonick, and Joshua Weitz, "Employment and earnings of African Americans Fifty Years After: Progress?" [Institute for New Economic Thinking](#) Working Paper No. 129, July 13, 2020.

with its 27 specialized institutes and centers, has a 2023 budget of \$47.5 billion.<sup>8</sup> From 1938, the year in which it first recorded expenditures, through 2023, the NIH spent \$1.6 trillion in 2023 dollars in support of life-sciences research.<sup>9</sup> A doubling of the NIH budget in real terms occurred in 1998-2004, driven by the Human Genome Project and the threat of bioterrorism.<sup>10</sup>

Besides research internal to the NIH, this funding supports the world's leading research labs in universities and hospitals and makes it possible to attract talented people from around the world to engage in medical studies and scientific research in the United States. Researchers at Bentley University document that NIH funding contributed to every one of the new molecular entities (NMEs) approved by the FDA from 2010 to 2016, with a focus primarily on the drug targets rather than on the NMEs themselves. There were 84 first-in-class products approved in this interval, associated with more than \$64 billion of NIH-funded projects.<sup>11</sup>

The pharmaceutical industry has benefited from general patent laws, with an increase in 1995 to 20 years of protection against competition from the time of filing a successful patent from the 17 years that prevailed from 1861 through 1994.<sup>12</sup> In 1980, in the wake of the recombinant DNA revolution of the 1970s, the US Supreme Court ruled in *Diamond v. Chakrabarty* that a genetically modified bacterium could be patented. Also in 1980, the passage of the Bayh-Dole Act facilitated the transfer of federally funded research from labs to commercial enterprises, with its main impact on the growth of the biopharmaceutical industry through licensing of patents. The 1982 consolidation of patent litigation in the Court of Appeals for the Federal Circuit Act strengthened patent-holders in protecting their intellectual property rights while making it difficult for plaintiffs to challenge patent-holders.

The Orphan Drug Act (ODA) of 1983 provides financial subsidies and market protection for pharmaceutical companies to develop drugs for rare and genetic diseases. From January 1, 1983, through April 17, 2024, there 6,859 ODA designations and 1,226 ODA approvals.<sup>13</sup> ODA also offers R&D tax credits as well as Food and Drug Administration (FDA) assistance in ensuring the rapid transformation of a promising compound into an approved marketable drug. Most importantly, ODA incentives include seven-year marketing exclusivity for a specific indication. Unlike patent protection, which begins at the outset of the drug discovery process, ODA exclusivity begins once the drug has been approved for sale by the FDA. Moreover, the company that has obtained ODA

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<sup>8</sup> National Institutes of Health, Office of Budget, "[Appropriations History](#) by Institute/Center (1938 to Present)," accessed September 22, 2022.

<sup>9</sup> Office of Budget, [National Institutes of Health](#), accessed February 24, 2022.

<sup>10</sup> William Lazonick and Matt Hopkins, "How 'Maximizing Shareholder Value' Minimized the Strategic National Stockpile," [Institute for New Economic Thinking](#) Working Paper No. 127, July 21, 2020.

<sup>11</sup> E. Galkina Cleary, J.M. Beierlein, N.S. Khanuja L.M. McNamee, F.D. Ledley, "Contribution of NIH Funding to New Drug Approvals 2010-2016," [Proceedings of the National Academy of Sciences](#), 115, 10, 2018: 2329-2334; Ekaterina Galkina Cleary, Matthew J. Jackson, and Fred D. Ledley, "Government as the First Investor in Pharmaceutical Innovation: Evidence from Drug Approvals 2010-2019," [Institute for New Economic Thinking](#) Working Paper No. 133, July 19, 2021. See also Ekaterina Galkina Cleary, Matthew J. Jackson, Edward W. Zhou, and Fred D. Ledley, "Comparison of Research Spending on New Drug Approvals by the National Institutes of Health vs the Pharmaceutical Industry," [JAMA Health Forum](#), April 28, 2023.

<sup>12</sup> The overview in the following paragraphs of the institutional framework within which the U.S. pharmaceutical industry operates draws on Öner Tulum and William Lazonick, "Financialized Corporations in a National Innovation System: The US Pharmaceutical Industry," [International Journal of Political Economy](#), 47, 3-4, 2018: 281-316.

<sup>13</sup> US Food & Drug Administration, "[Search Orphan Drug Designations and Approvals](#)," accessed April 17, 2024.

approval does not necessarily require patent protection to have market exclusivity in selling the drug.

Orphan drugs, which have typically come with very high price tags, were central to the growth of the leading companies in the biopharmaceutical drug industry, including Amgen, Genentech, Genzyme, Biogen IDEC, Cephalon, and Allergan. Large pharmaceutical companies have also benefited from orphan drugs, either by acquiring smaller biopharma companies or by entering into co-marketing deals with them that typically entail both equity investments and research contracts.<sup>14</sup>

Besides. US-based corporations, major pharmaceutical and medical-equipment companies headquartered abroad maintain extensive R&D facilities in the United States. Enabled by student and non-immigrant (H-1B and L-1) work visas, the US healthcare industry can draw upon aspiring and practicing medical and scientific personnel who come to the United States from around the world for higher education and work experience. Large numbers of them became permanent residents and US citizens, with career-long employment in the United States.<sup>15</sup>

In addition to scientific work in the established research labs of government agencies, universities, hospitals, nonprofits, and Big Pharma, employment opportunities abound in hundreds of biopharma startups, supported by the world's richest and most robust venture capital industry. Through the transformation of new biotechnologies into safe and effective medical products, a small number of these startup companies have grown to be substantial firms, employing thousands of scientific personnel in the United States.<sup>16</sup>

### **Investing in high-quality healthcare goods and services**

This knowledge base makes it possible for corporations in the pharmaceutical and medical-equipment industries operating in the United States to engage in the organizational learning that can generate higher-quality *healthcare goods* than has previously been available. These corporations can then engage in mass production to transform the high fixed cost of developing these higher-quality goods into low unit cost, reaping economies of scale and scope.<sup>17</sup> When companies in these industries innovate—that is, generate products that are higher quality and lower cost than those previously available—they can become highly profitable. Moreover, by generating real productivity gains, an innovative enterprise can reap profits even as it shares portions of these gains with stakeholders such as employees, customers, suppliers, distributors, communities, and governments.

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<sup>14</sup> William Lazonick and Öner Tulum, "US Biopharmaceutical Finance and the Sustainability of the Biotech Business Model," *Research Policy*, 40, 9, 2011: 1170-1187.

<sup>15</sup> William Lazonick, Philip Moss, Hal Salzman, and Öner Tulum "Skill Development and Sustainable Prosperity: Collective and Cumulative Careers versus Skill-Biased Technical Change," [Institute for New Economic Thinking](#) Working Group on the Political Economy of Distribution Working Paper No. 7, December 2014.

<sup>16</sup> Lazonick and Tulum, "US Biopharmaceutical Finance."

<sup>17</sup> William Lazonick, "The Theory of Innovative Enterprise: Foundations of Economic Analysis," in Thomas Clarke, Justin O'Brien, and Charles R. T. O'Kelley, eds., *The Oxford Handbook of the Corporation*, Oxford University Press, 2019: 490-514.

The senior executives of these companies can then, if they so choose, allocate a portion of the productivity gains to reward employees for their prior contributions to the innovation processes that helped to generate those gains. These rewards can take the form of augmented wages, superior benefits, and more secure and satisfying employment opportunities. Indeed, these enhanced employment opportunities may be integral to the development of the company's next generation of higher-quality products, thus renewing the innovation cycle.

These healthcare companies can share some of the gains of innovation with the buyers of their products in the form of lower prices. Even then, there may be sufficient corporate profits remaining to pay a fair share of taxes to government as well as dividends to shareholders. In other words, the generation of higher-quality goods at lower unit costs results in productivity gains that, depending on how those gains are allocated, can benefit a range of corporate stakeholders.

At the same time, there are strict limits to the application of mass-production principles to the delivery of *healthcare services* in settings such as hospitals, doctors' offices, health clinics, and nursing homes. Goods and services are both products, but a service differs from a good in requiring one or more people representing the seller to interact with one or more people representing the buyer for the service to have value. Hence, in contrast to goods, services cannot be mass produced.

That having been said, central to the innovation dynamic is the codification and automation of the tacit and personal knowledge required to deliver services, thus transforming services into goods that can be mass produced. But these more complex goods then provide process platforms for more sophisticated services, which then increase the need to rely on educated and experienced people to deliver them. As we discuss in the conclusion of this paper, this innovation dynamic—similar to what Nonaka and Takeuchi call the “knowledge spiral”<sup>18</sup>—is of profound importance to potential advances in the quality and cost of the delivery of healthcare goods and services.

Under any circumstances, the delivery of healthcare is expensive because the transformation of services into goods entails the high-fixed cost of process technologies, while the consequent potential for the delivery of more sophisticated services typically requires more highly educated and experienced personnel. The existence of this innovation dynamic is one reason why healthcare is expensive in the United States, but it cannot explain the per-capita cost differential of healthcare between the United States and other advanced nations, cited above. No can it explain the extent to which a large portion of the US population receives low-quality healthcare.

There is no doubt that a system of single-payer health coverage, if properly implemented, would enable a significant reduction in the total cost of the US healthcare system while giving lower-income people far more equitable access to healthcare services. One study carried out just prior

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<sup>18</sup> Ikujiro Nonaka and Hirotaka Takeuchi, *The Knowledge-Creating Company: How Japanese Companies Create the Dynamic of Innovation*, Oxford University Press, 1995.



to the SARS-CoV-2 pandemic estimated that in 2019 Medicare for All would have reduced total national healthcare expenditures by \$458 billion, a cost saving of 12 percent, lowering per capita expenditures from \$11,582 to \$10,184.<sup>19</sup> The cost reductions would have come from reductions in reimbursement rates to hospitals, doctors, and clinics; pharmaceutical prices via negotiation; overhead expenditure; and fraud.<sup>20</sup>

Even then, however, it is likely that national healthcare expenditures would require government subsidies to enable the delivery of high-quality healthcare services to the US population. It has been argued that even healthcare goods such as pharmaceuticals need not be run as for-profit businesses.<sup>21</sup> A stronger case can be made for the delivery of healthcare services because, by definition, services require the direct interaction of qualified labor with patients to add value to their health. By the same token, the main potential advantage of a for-profit business model is the management of mass production while maintaining the high quality of the good being produced.<sup>22</sup>

But healthcare activities in which the quest for profit can only come at the expense of the quality of care, a not-for-profit governance model should prevail. Even in the case of a for-profit governance model, however, PVE will be the enemy of high-quality, low-cost healthcare. Moreover, in recent years, private equity has invaded the activities of healthcare activities that should be not-for-profit. The following two sections of this report provide summaries of the ways in which PVE, first by public equity mainly in the goods-producing sectors and then by private equity mainly in the services-producing sectors, have been undermining the delivery of high-quality, low-cost healthcare in the United States.

### ***The Inflation Reduction Act of 2022***

On August 16, 2022, Congress passed the Inflation Reduction Act (IRA), which, among other things, enables Medicare to negotiate the prices of certain high-cost prescription drugs, beginning in 2026.<sup>23</sup> Even though it is just one step forward in confronting the US pharmaceutical industry's financialized business model, this legislation was a long time coming.<sup>24</sup> *A Washington*

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<sup>19</sup> Alison P. Galvani, Alyssa S. Parpia, Eric M. Foster, Burton H. Singer, Meagan C. Fitzpatrick, "Improving the Prognosis of Health Care in the United States," *Lancet*, 395, 2020: 524-533. For actual 2019 US healthcare expenditures, see Apoorva Rama, "National Health Expenditures, 2019: Steady Spending Growth Despite Increases in Personal Health Care Expenditures in Advance of the Pandemic," [American Medical Association](#), 2021.

<sup>20</sup> Galvani et al., "Improving the Prognosis," p. 526.

<sup>21</sup> See Dana Brown, "Medicine for All: The Case for a Public Option in the Pharmaceutical Industry," [The Next System Project](#), September 10, 2019.

<sup>22</sup> More generally on this point, see Lazonick, "the Theory of Innovative Enterprise"; William Lazonick, Alfred Chandler's Managerial Revolution: Developing and Utilizing Productive Resources," in William Lazonick and David J. Teece, eds., *Management Innovation: Essays in the Spirit of Alfred D. Chandler, Jr.*, Oxford University Press, 2012: 3-29

<sup>23</sup> The White House, "FACT SHEET: The Inflation Reduction Act supports workers and families," Briefing Room [press release](#), August 19, 2022; Juliette Cubanski, Tricia Newman, and Meredith Freed, "Explaining the prescription drug provisions in the Inflation Reduction Act," [KFF](#), September 22, 2022.

<sup>24</sup> For the research of the Academic-Industry Research Network on the financialized business model of the US pharmaceutical industry, see William Lazonick and Mustafa Erdem Sakaç, "Do Financial Markets Support Innovation or Inequity in the Biotech Drug Development Process?" paper presented at the Conference on Innovation and Inequality: Pharma and Beyond, Pisa, Italy, May 15, 2010; Lazonick and Tulum, "US Biopharmaceutical Finance"; William Lazonick, Matt Hopkins, Ken

Post article published almost four decades ago reported accusations against pharmaceutical companies by then-US Rep. Henry Waxman (D-CA) of “outrageous price increases” and “greed on a massive scale.” In response to Waxman, drug-company executives asserted that “prices have climbed recently to cover accelerated investment in researching and developing new and better medications to protect Americans.”<sup>25</sup>

Over the decades, the argument that pharmaceutical companies need high drug prices to finance drug innovation has been a mainstay of the industry’s opposition to price regulation. Not surprisingly, with Medicare’s right to negotiate prescription drug prices as a key policy objective of the Biden administration’s Build Back Better agenda, the industry lobby association, Pharmaceutical Research and Manufacturers of America (PhRMA), spewed out a slew of blog posts, with data from commissioned “studies,” to argue that government regulation of drug prices would deprive its member companies of the profits needed to augment and accelerate investment in drug innovation.<sup>26</sup>

Included in PhRMA’s lobbying effort was a letter dated August 4, 2022, signed by PhRMA president Stephen Ubl and 31 senior pharmaceutical company executives (mostly CEOs) on PhRMA’s board of directors, in which they sounded the alarm on drug-price regulation under the IRA:

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Jacobson, Mustafa Erdem Sakiç, and Öner Tulum, “Life Sciences? How ‘Maximizing Shareholder Value’ Increases Drug Prices, Restricts Access, and Stifles Innovation,” [submission](#) to the United Nations Secretary-General’s High-Level Panel on Access to Medicines, February 28, 2016; William Lazonick, Matt Hopkins, Ken Jacobson, Mustafa Erdem Sakiç, and Öner Tulum “U.S. Pharma’s Business Model: Why It Is Broken, and How It Can Be Fixed,” [submission](#) to the United Nations Secretary-General’s High-Level Panel on Access to Medicines, February 28, 2016; William Lazonick and Ken Jacobson, “We stopped Pfizer’s tax dodge, now let’s end the buybacks,” [Huffington Post](#), April 8, 2016; William Lazonick, Matt Hopkins, Ken Jacobson, Mustafa Erdem Sakiç, and Öner Tulum, “U.S. Pharma’s Business Model: Why It Is Broken, and How It Can Be Fixed,” in David Tyfield, Rebecca Lave, Samuel Randalls, and Charles Thorpe, eds., *The Routledge Handbook of the Political Economy of Science*, Routledge, 2017: 83-100; Öner Tulum and William Lazonick, “Financialized Corporations in a National Innovation System: The US Pharmaceutical Industry,” *International Journal of Political Economy*, 47, 3-4, 2018: 281-316; William Lazonick and Öner Tulum, “How high drug prices inflate C.E.O.s’ pay,” [New York Times](#), February 26, 2019; William Lazonick, Öner Tulum, Matt Hopkins, Mustafa Erdem Sakiç, and Ken Jacobson, “Financialization of the U.S. Pharmaceutical Industry,” [Institute for New Economic Thinking](#), December 2, 2019; William Lazonick, “US pharma companies need price regulation amid focus on stock prices and executive pay,” [Business and Human Rights Resource Center](#), January 15, 2020; Rosie Collington and William Lazonick, “Pricing for Medicine Innovation: A Regulatory Approach to Support Drug Development and Patient Access,” [Institute for New Economic Thinking Working Paper No. 178](#), February 2022; William Lazonick and Öner Tulum, “Sick with ‘Shareholder Value’: US Pharma’s Financialized Business Model during the Pandemic,” *Competition & Change*, 28, 2, 2024: 251-273.

<sup>25</sup> Sari Horwitz, “Drug industry accused of gouging public,” *Washington Post*, July 15, 1985, p. E1.

<sup>26</sup> See “[Recent Posts](#)” by Nicole Longo, PhRMA’s senior director of public affairs, including, among others, “A price control by any other name would still put patients at risk and threaten innovation,” [PhRMA](#), December 9, 2021; “Government price setting leaves behind families counting on new medicines,” [PhRMA](#), February 3, 2022; “Correcting the record: Putting medicine costs and spending in context,” [PhRMA](#), March 24, 2022; “By the numbers: Patients lose when the government sets prices,” [PhRMA](#), July 8, 2022; “The Senate’s latest price setting proposal will undermine: Patient access to medicines,” [PhRMA](#), July 22, 2022; “The Senate’s latest price setting proposal will undermine: American medical innovation,” [PhRMA](#), July 27, 2022; “The Senate’s latest price setting proposal will undermine: Our health care system,” [PhRMA](#), July 28, 2022; “The Senate’s latest price setting proposal will undermine U.S. economic growth,” [PhRMA](#), August 3, 2022; “Myth vs. fact: The Senate’s latest price setting proposal,” [PhRMA](#), August 5, 2022; “This week’s reading list: All the reasons the Senate-passed drug pricing bill is bad policy,” [PhRMA](#), August 10, 2022; “New government price setting policy threatens post-approval research,” [PhRMA](#), November 10, 2022.

While the bill saves the federal government \$300 billion, it takes far more from the biopharmaceutical industry and will have significant consequences for innovation and patients' hope for the future. Some economists estimate upwards of 100 new treatments may be sacrificed over the next two decades if this bill becomes law. This includes treatments for multiple chronic conditions, the annual \$2.7 trillion medical and lost productivity costs of which far exceed the direct federal "savings" this bill would achieve.<sup>27</sup>

With the IRA passed into law, on June 6, 2023, Merck announced that it had filed a complaint against the US Department of Health and Human Services (HHS), contesting its right to mandate the negotiation of drug prices.<sup>28</sup> Describing that IRA's Drug Price Negotiation Program as "a sham" and "tantamount to extortion," the Merck complaint argues that it violates the Constitution's Fifth Amendment, which "requires the Government to pay 'just compensation' if it takes 'property' for public use." The lawsuit also contends that, by creating the "political deception...that HHS's prices are not top-down mandates but the product of voluntary 'agreements' with companies who concede they are 'fair,'" the US government makes "a mockery of the First Amendment." "Conscripting companies to legitimize government extortion," the Merck complaint asserts, "is the sort of parroted orthodoxy that the First Amendment's compelled-speech doctrine forbids."<sup>29</sup>

On June 9, in a letter to the "Merck community," the company wrote:

On average, it takes a decade and more than \$2.5 billion to develop a new drug. Since 2000, companies like ours have invested more than \$1.1 trillion in the search for new treatments and cures, including \$102.3 billion in 2021 alone. This investment has led to incredible breakthroughs for patients.

Unfortunately, this progress is now at risk due to unconstitutional provisions in the Inflation Reduction Act (IRA), necessitating the legal action Merck has taken in U.S. Federal Court against the United States government. We believe this program will negatively impact biopharmaceutical innovation and the sector's work to develop lifesaving and life-changing innovations. In turn, it will have devastating consequences for millions of patients in need....

Patients and the public need biopharmaceutical innovation to address global health challenges like cancer and Alzheimer's disease, and the IRA is negatively affecting critical research and development. By changing the incentives and returns for some therapies and technologies over others, the IRA is changing the

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<sup>27</sup> Stephen Ubl, "An open letter to Congress: Stand with patients and future cures," [PhRMA](#), August 4, 2022.

<sup>28</sup> Merck & Co. v. Xavier Becerra, U.S. Secretary of Health & Human Services; and U.S. Department of Health & Human Services, [Civil Action No. 1:23-cv-01615](#), United States District Court of the District of Columbia, June 6, 2023."

<sup>29</sup> Ibid., pp. 2-3.

course of R&D, which in time will leave many patients without treatment options.<sup>30</sup>

Three days later, the US Chamber of Commerce chimed in with its lawsuit,<sup>31</sup> arguing that “government price controls harm patients, limit access to medicine, and stifle American innovation.”<sup>32</sup> Next up, on June 16, was Bristol Myers Squibb (BMS). With a press release entitled “the impact of the Inflation Reduction Act on Innovative Medicines for Patients,” the Big Pharma company explained that it had sued HHS because

[s]ince the IRA’s inception, we have expressed serious concerns about the impact this program will have on research and development and future innovation that can help patients prevail over serious disease....This program is bad for innovation—and, in turn, the millions of patients who are counting on the pharmaceutical industry to develop new treatments and cures that save lives and improve health and wellbeing.<sup>33</sup>

On June 22, PhRMA along with the Global Colon Cancer Association and the National Infusion Center Association added a fourth legal challenge to IRA price negotiations, contending that “the Inflation Reduction Act of 2022...upends [the] time-tested, market-based system for encouraging innovation. In its place, Congress established a system of price controls, seeking to reduce expenditures even at the cost of drastically slowing innovation, reducing drug availability, and worsening patient outcomes.”<sup>34</sup>

### ***Large US pharmaceutical companies do not use high drug prices to fund innovation***

Underpinning these arguments of the devastating impact of the IRA’s requirement for price negotiations on drug innovation and patient access to medicines is the assumption that the pharmaceutical companies systematically reinvest corporate profits in productive capabilities that improve the development, manufacture, and delivery of drugs. Pharmaceutical executives and their lobbyists contend that price regulation will reduce profits and stifle drug innovation. Negating this assumption, however, is abundant—and indeed overwhelming—evidence that most of these pharmaceutical executives allocate corporate profits to massive distributions to

<sup>30</sup> Rob Davis, Dean Li, Jennifer Zachary, and Jannie Oosthuiszen, “The Inflation Reductio Act’s negative impact on patient-focused, innovation and access,” [Open letter](#) from Merck senior executives to the Merck community, June 6, 2022.

<sup>31</sup> Dayton Area Chamber of Commerce; Ohio Chamber of Commerce; Michigan Chamber of Commerce; Chamber of Commerce of the United States of America v. Xavier Becerra, U.S. Secretary of Health & Human Services; and U.S. Department of Health & Human Services; Chiquita Brooks-Lasure; Centers for Medicare and Medicaid Services, Case [3:23-cv-00156-TMR-PBS](#), United States District Court of the Southern District of Ohio Western Division, June 9, 2023.

<sup>32</sup> Brad Watts and Katie Mahoney, “Why We’re Suing HHS and CMS to Challenge Illegal Price Controls,” [U.S. Chamber of Commerce](#), June 9, 2023.

<sup>33</sup> Bristol Myers Squibb, “Impact of the Inflation Reduction Act on Innovative Medicines for Patients,” [Bristol Myers Squibb press release](#), June 16, 2023

<sup>34</sup> <https://phrma.org/-/media/Project/PhRMA/PhRMA-Org/PhRMnational InA-Org/1---9/20230621-NICA-GCCA-PhRMA-Complaint-Challenging-Drug-Pricing-Provisions-of-the-IRA.pdf>, p. 3 National Infusion Center Association; Global Colon Center Association; and Pharmaceutical Research and Manufacturers of America v. Xavier Becerra, U.S. Secretary of Health & Human Services; and U.S. Department of Health & Human Services; Chiquita Brooks-Lasure; Centers for Medicare and Medicaid Services, Civil Action [No. 1:23-cv-00707](#), June 21, 2023.

shareholders in the form of cash dividends and stock buybacks.<sup>35</sup> Rather than devoting the high profits from high drug prices to augmenting and accelerating investment in drug innovation, US pharmaceutical companies burden US patients and taxpayers with high drug prices so that, through massive distributions to shareholders, the senior executives who make these allocation decisions can boost the yields on the companies' publicly traded shares.

Plaintiffs Merck and Bristol Myers Squibb (BMS) are cases in point. For the two decades 2003-2022, Merck's distributions to shareholders were \$93 billion in cash dividends, equal to 74 percent of its net income over the period, and \$60 billion in stock buybacks, an additional 48 percent of net income. For BMS over the same 20 years, the distributions were \$53 billion in dividends, 87 percent of net income, and \$31 billion as buybacks, another 50 percent of net income. With distributions to shareholders well over 100 percent of profits for both companies, and indeed more generous in the recent decade, neither Merck nor Bristol Myers Squibb can claim that it needs higher drug prices to fund innovation. These companies have used higher drug prices to increase distributions to shareholders.

Contrary to conventional wisdom, neither Merck nor BMS shareholders finance innovation at these companies. They simply buy and sell outstanding shares on the stock market. Merck was founded in 1891 and went public on the stock market in 1941. The last time that that Merck issued common shares on the public stock market was in 1952. Over the next 70 years, the company received \$14.4 billion (of which \$14.1 billion, 1993-2022) from employees as proceeds from the exercise of stock options and, in 2000, \$1.5 billion from a preferred share issue.

BMS was founded in 1858 and went public on the stock market in 1928. Like Merck, the last time that BMS issued common shares on the public stock market was in 1952, when, as Bristol-Myers it did a rights issue for \$4.2 million. Over the next 70 years, the company received \$5.5 billion (of which \$4.8 billion, 1993-2022) from employees as proceeds from the exercise of stock options.

It is a myth that, once profitable, established companies such as Merck and BMS need to raise funds on the stock market. Funds retained from profits represent the financial foundation for investment in productive capabilities. By reducing, or completely eliminating, retained earnings, distributions to shareholders undermine that financial foundation. Indeed, companies often price gouge their customers, terminate workers, squeeze suppliers, sell assets, take on debt, and avoid taxes to increase the "free cash flow" that can be devoted to buybacks and dividends.<sup>36</sup> Hence, distributions to shareholders often exceed far more than 100 percent of net income.

There is, however, an important distinction between dividends and buybacks. The two types of distributions to shareholders both drain corporate treasuries, but they differ in terms of how the gains from them are realized and the implications for corporate investment in productive capabilities. Shareholders who purchase shares of a company on the stock exchange can get a dividend yield on that portfolio investment by *holding* shares. In contrast, open-market

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<sup>35</sup> See the references in note 22, above.

<sup>36</sup> Lazonick, *Investing in Innovation*; William Lazonick, Mustafa Erdem Sakiç, and Matt Hopkins, "Why Stock Buybacks Are Dangerous for the Economy," [Harvard Business Review](#), January 7, 2020.

repurchases (OMRs), representing the vast majority of buybacks, increase the gains of *sharesellers* who, as professional stock traders, are in the business of timing the buying and selling of shares, often benefiting from access to nonpublic information on the precise days on which the company is executing buybacks.

As Lazonick and Shin show in *Predatory Value Extraction*, the looting of corporate treasuries involves the interaction of senior corporate executives as value-extracting insiders, asset fund managers as value-extracting enablers, and hedge-fund activists as value-extracting outsiders.<sup>37</sup> Through permissive changes in US corporate governance rules concerning hedge-fund communications with corporate executives, assets under management by hedge funds while remaining largely unregulated, and hedge-fund influence over proxy voting by institutional shareholders, a relatively small number of hedge-fund activists have come, over the past three decades, to exert immense power over PVE, with a particular focus on increasing buybacks.<sup>38</sup>

As a result, the value-extracting activities of Big Pharma companies such as Merck and BMS reflect a much larger PVE movement that afflicts the US corporate economy. Data for the 478 corporations included in the S&P 500 Index in January 2023 and publicly traded from 2013 through 2022 reveal that these corporations distributed *\$6.4 trillion* as share repurchases during the 2013-2022 fiscal years, representing 57 percent of net income, and *\$4.5 trillion* as dividends, an additional 40 percent of net income (see Table 1). The vast majority (we estimate about 95 percent) of the buybacks were done as OMRs of common shares, the purpose of which is to manipulate the company's stock price.

As shown in Table 1, for the decade 2013-2022, distributions to shareholders by the 14 pharmaceutical companies that were among the 478 S&P 500 companies in the database represented 105 percent of net income, a larger proportion than the highly financialized 96 percent for all 474 companies. At 55 percent, the proportion of net income allocated to stock buybacks for the subset of pharmaceutical companies was the same as for the 474 companies, but, at 54 percent versus 41 percent, pharmaceutical dividends as a proportion of net income far exceeded that of all the companies in the dataset. The 14 pharmaceutical companies accounted for 3.1 percent of the revenues of all 474 companies but 6.6 percent of the net income, 6.6 percent of the buybacks, and 8.8 percent of the dividends. The *\$773 billion* that the pharmaceutical companies distributed to shareholders was 10 percent greater than the *\$701 billion* that these corporations expended on research & development over the decade.

As noted earlier, these data on distributions to shareholders sharply contradict the contention by PhRMA and its member companies that they need unregulated drug prices to generate profits that they can then reinvest in drug innovation. At the same time, significant beneficiaries of these distributions to shareholders have been the very same senior executives who control the pharmaceutical companies' resource-allocation decisions. Table 2 displays data on the

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<sup>37</sup> Lazonick and Shin, *Predatory Value Extraction*.

<sup>38</sup> For the case of corporate predator Carl Icahn, see *ibid.*, ch. 6. Below, we summarize research by Lazonick and Hopkins into the case of hedge-fund activist Nelson Peltz (Triun Partners) and his attack on General Electric.

compensation of the 500 highest-paid executives in the United States for each year from 2006 through 2022 and the subset of pharmaceutical executives among these 500 highest paid.

**Table 1. Financial data, 2013-2022, and 2022 employment for 478 corporations, including 14 pharmaceutical companies, in the S&P 500 Index in January 2023 that were publicly listed 2013-2022 (year founded; year of IPO for each pharmaceutical company)**

COMPANY (year founded; IPO)	2013-2022 TOTALS, \$b						% of NI			R&D, % of REV	2022 EMP. (thous.)
	REV	NI	BB	DV	DV+BB	R&D	BB	DV	BB+DV		
BMS (1858; 1928)	273	24	27	31	57	82	110	127	236	30	34
ABBVIE (1888; 1929)	342	64	32	55	87	62	50	87	137	18	50
AMGEN (1980; 1983)	231	63	50	31	81	43	79	49	129	19	25
MERCK (1891; 1941)	451	78	42	57	98	99	54	73	127	22	69
J&J (1886; 1944)	799	147	57	93	150	114	38	63	102	14	156
EU LILLY (1870; 1952)	235	42	16	25	41	63	38	59	98	27	39
BAXTER (1931; 1978)	125	14	7	6	13	7	52	44	96	6	60
PFIZER (1849; 1941)	584	157	61	77	138	93	39	49	88	16	83
BIOGEN (1978; 1983)	114	34	28	0	28	24	84	0	84	21	9
GILEAD SCI. (1987; 1992)	249	73	36	24	60	56	49	33	82	22	17
VIATRIS (1971; 1978)	116	4	2	1	3	7	53	24	77	6	37
REGENERON (1988; 1991)	71	24	13	0	13	23	53	0	53	32	12
VERTEX (1989; 1999)	37	10	3	0	3	16	30	0	30	43	5
INCYTE (1991; 1993)	17	1	0	0	0	11	5	0	5	61	2
<b>TOTAL 14 PHARMA</b>	<b>3,643</b>	<b>734</b>	<b>373</b>	<b>400</b>	<b>773</b>	<b>701</b>	<b>51</b>	<b>54</b>	<b>105</b>	<b>19</b>	<b>598</b>
<b>TOTAL 478 in S&amp;P500</b>	<b>115,333</b>	<b>11,103</b>	<b>6,368</b>	<b>4,491</b>	<b>10,860</b>	<b>3,269</b>	<b>57</b>	<b>40</b>	<b>98</b>	<b>3</b>	<b>28,329</b>
<b>14 PHARMA AS % OF 478 in S&amp;P 500 = 2.9%</b>	<b>3.2%</b>	<b>6.6%</b>	<b>5.8%</b>	<b>8.9%</b>	<b>7.1%</b>	<b>21.4%</b>					<b>2.1%</b>

Notes: IPO=initial public offering, REV=revenues, NI=net income, BB=stock buybacks, DV=dividends, R&D=research & development expenditures, EE=end-of-fiscal-year employment (in thousands)

J&J is Johnson & Johnson; BMS is Bristol Myers Squibb; Baxter Intl is Baxter International.

The founding and IPO years listed for Abbvie are those of its predecessor company Abbott Laboratories; for BMS, for the founding of Squibb and the IPO of Bristol-Myers; and for Viatriis, for its predecessor company Mylan.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.

From 2006 through 2022, the average total direct compensation (TDC) of the 500 highest-paid executives ranged from, with the stock market depressed, a low of \$15.9 million in 2009, of which 60 percent were realized gains from stock-based pay, to, with the stock market booming, a high of \$49.1million in 2021, of which 89 percent were realized gains from stock-based pay.<sup>39</sup> In most years, the average TDC of the pharmaceutical executives was higher than for all 500 executives.

<sup>39</sup> Most reports on executive pay by academics, think tanks, and the media use the meaningless estimated "fair value" measures of stock options and stock awards, which, using grant-date stock prices, fail to capture the actual realized gains which flow to executives when they exercise stock options or when awards vest. See Matt Hopkins and William Lazonick, "The Mismeasure of Mammon: Uses and Abuses of Executive Pay Data," Institute for New Economic Thinking [Working Paper No. 49](#), August 29, 2016; William Lazonick and Matt Hopkins, "Corporate executives are making way more money than anybody reports," *The Atlantic*, September 15, 2016; William Lazonick and Matt Hopkins, "If the SEC Measured CEO Pay Packages Properly, They Would Look Even More Outrageous," *Harvard Business Review*, December 22, 2016; William Lazonick and Matt Hopkins, "Comment on the Pay Ratio Disclosure Rule," [public comment](#) to the US Securities and Exchange Commission, March 21, 2017. See also Bob Herman, "The sky-high pay of health care CEOs," *Axios*, July 24, 2017.

**Table 2. 500 highest-paid executives in each year, US corporations, with proportions of mean total direct compensation from stock options and stock awards, and representation of pharmaceutical executives among the top 500, 2006-2022**

YEAR	All 500 Highest-paid executives				Pharma executives				
	Mean, \$m	% of TDC			Mean, \$m	% of TDC			No. of execs
		TDC	SO	SA		SO+SA	TDC	SO	
2006	25.6	56	17	73	25.7	47	30	77	23
2007	31.5	57	19	76	22.1	65	8	73	14
2008	20.7	48	23	71	22.1	64	13	76	21
2009	15.9	37	23	60	22.0	40	18	59	29
2010	19.8	38	26	65	20.8	50	24	74	25
2011	21.7	39	30	69	20.6	55	15	71	24
2012	32.3	41	37	78	34.9	61	24	85	24
2013	27.4	46	33	79	35.3	68	24	91	34
2014	32.7	46	34	80	43.7	69	19	88	41
2015	35.0	49	35	84	46.2	58	30	88	32
2016	27.5	37	42	78	31.5	48	23	71	26
2017	33.8	46	35	82	43.5	52	37	89	22
2018	33.6	43	42	85	34.5	67	21	88	22
2019	33.6	40	43	82	38.2	60	26	86	19
2020	43.4	52	35	87	49.7	63	27	90	31
2021	49.1	45	43	89	66.9	83	11	94	24
2022	35.9	30	55	85	45.0	64	24	88	28

Notes: TDC=total direct compensation, SO=stock options, SA=stock awards  
Source: S&P ExecuComp database

Distributions to shareholders in the form of dividends and buybacks inflate executives' realized gains on stock-based pay. In the case of stock buybacks, not even the Securities and Exchange Commission (SEC), which purportedly regulates US financial markets, knows the precise days on which buybacks as OMRs are executed.<sup>40</sup> But the CEO and CFO of the repurchasing corporation possess this material insider information, and, moreover, they decide when to execute buybacks. Even with SEC Rule 10b5-1, adopted in 2000 to give corporate executives a safe harbor against insider-trading charges in stock sales by doing them according to a pre-announced plan, top executives can time their option exercises and stock sales to increase their pay.<sup>41</sup> OMRs result in stock-price increases that can, if the senior executives correctly time their stock sales, augment their stock-based pay. The executives' strategic control over resource-allocation decisions and

<sup>40</sup> See William Lazonick and Ken Jacobson, "Letter to SEC: How Stock Buybacks Undermine Investment in Innovation for the Sake of Stock-Price Manipulation," *Institute for New Economic Thinking*, April 1, 2022.

<sup>41</sup> Allan Horwich, "The Origin, Application, Validity, and Potential Misuse of Rule 10b5-1," *The Business Lawyer*, 61, May 2007: 913-954; Alan B. Jagolinzer, "SEC Rule 10b5-1 and Insiders' Strategic Trade," *Management Science*, 55, 2, 2009: 231-259; Jesse Eisinger, "Repeated good fortune in timing of CEO's stock sale," *New York Times*, February 19, 2014. Chris Prentice and Manya Saini, "U.S. probes insider trading in pre-arranged stock sales," *Reuters*, November 3, 2022.



insider information about the timing of buybacks can contribute to the gains that these executives realize in exercising stock options and the vesting of their stock awards.<sup>42</sup>

The extraordinarily high pharmaceutical TDC and percentages that were stock based in 2014 and 2015 (later outstripped in the pandemic years of 2020 and 2021) were largely the result of the bonanzas reaped by a number of executives at Gilead Sciences through the impacts on the company's stock price of its soaring sales of the high-priced Sovaldi/Harvoni hepatitis-C drugs combined with its use of its inflated profits to do stock buybacks.<sup>43</sup> Also, when the average pay of the top 500 executives exploded to new heights in 2020 and 2021, the pay of the subset of pharmaceutical executives took off even more. As the pandemic raged, the average TDC of 27 pharmaceutical executives among the top 500 rose to an unprecedented \$66.9 million, with 93 percent of it coming from realized gains on stock-based pay, the highest proportion since data on realized gains on stock awards as well as stock options became available in 2006.<sup>44</sup>

Table 3, which selects from all pharmaceutical executives in the S&P ExecuComp database (and not just from those companies in the S&P 500 Index), identifies the six highest-paid pharmaceutical executives for each year from 2006 through 2022.

Note the prominence of executives from three "New Economy" biopharma companies (all founded in the late 1980s): Regeneron (20 of 102 cells, all during 2012-2022), Gilead Sciences (17 of 102 cells), and Celgene (8 of 102 cells). Also note the extent to which their pay is stock based. Of the 102 cells in Table 3, the pay levels in 93 cells are 60 percent or more stock based, with 66 cells 90 percent or more, 17 between 80 and 90 percent, seven between 70 and 80 percent, and three between 60 and 70 percent.

Of the highest-paid executives, founders of the companies include Leonard Schleifer and George Yancopoulos, Regeneron (founded in 1988, IPO in 1991); Leonard Bell, Alexion (1992, 1996); Martine Rothblatt, United Therapeutics (1996, 1999); Sol Barer, Celgene (1986, 1987); Jonah Shacknai, Medicis Pharmaceutical (1988, 1990); and Stephane Bancel, Moderna (2010, 2018). Five of these companies went public within a few years after their founding, a phenomenon encouraged by the creation of the highly speculative NASDAQ stock exchange in 1971 and its subsequent growth. Moderna took eight years from founding to IPO, but it was the biggest IPO in biopharma history, notwithstanding the absence of products and profits. The compensation of these individuals shown in Table 3 is as executive employees of the companies and does not include personal income received by selling founder shares.

A ten-time "medalist" in the highest-paid rankings is Gilead's John C. Martin, who was the company's CEO from 1996 to 2016 and executive chairman from 2016 to 2018. He appears on

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<sup>42</sup> Robert J. Jackson, Jr., "Stock Buybacks and Corporate Cashouts," Commissioner's speech, US Securities and Exchange Commission, June 11, 2018; Lenore Palladino, "Do Corporate Insiders Use Stock Buybacks for Personal Gain?," [International Review of Applied Economics](#), 34:2, 2020: 152-174.

<sup>43</sup> Lazonick et al., "U.S. Pharma's Business Model"; Victor Roy, *Capitalizing a Cure: How Finance Controls the Price and Value of Medicines*, [University of California Press](#), 2023.

<sup>44</sup> See Hopkins and Lazonick, "The Mismeasure of Mammon."

the top-six list in each of the first 12 years, 2006-2017, including five times in first place, three times in second, and twice in third. His average annual TDC of \$197.9 million in 2013-2015 was more than double the \$85.5 million he took home in 2012 and the \$98.4 million in 2016.

**Table 3. Six highest-paid pharmaceutical executives, 2006-2022, with total direct compensation (TDC) in millions of dollars (stock-based pay as percent of TDC)**

	#1	#2	#3	#4	#5	#6
2006	John W. Jackson CELGENE \$84.5m (96%)	Kenneth E. Goodman FOREST LAB. \$78.2m (99%)	Sol J. Barer CELGENE \$46.1m (94%)	Howard Solomon FOREST LAB. \$40.9m (96%)	Robert Alan Essner WYETH \$34.1m (73%)	John C. Martin GILEAD SCIENCES \$32.5m (92%)
2007	Miles D. White ABBOTT LAB. \$47.8m (79%)	David E. I. Pyott ALLERGAN INC \$46.0m (93%)	John C. Martin GILEAD SCIENCES \$35.6m (93%)	Richard A. Gonzalez ABBOTT LAB. \$30.7m (88%)	Gregory T. Lucier LIFE TECHNOLOGIES \$29.4m (90%)	Henri A. Termeyer GENZYME \$24.7m (85%)
2008	Robert J. Hugin CELGENE \$74.6m (97%)	Sol J. Barer CELGENE \$59.3m (94%)	John C. Martin GILEAD SCIENCES \$33.1m (91%)	Miles D. White ABBOTT LAB. \$30.3m (67%)	William C. Weldon JOHNSON & JOHNSON \$25.6m (11%)	James C. Mullen BIOGEN \$24.9m (84%)
2009	Fred Hassan MERC & CO \$91.3m (61%)	John C. Martin GILEAD SCIENCES \$60.4m (94%)	Robert J. Bertolini MERC & CO \$58.5m (17%)	Carrie Smith Cox MERC & CO \$46.2m (40%)	Thomas Paul Koestler MERC & CO \$38.9m (46%)	Sol J. Barer CELGENE \$31.4m (87%)
2010	John C. Martin GILEAD SCIENCES \$42.7m (91%)	David E. I. Pyott ALLERGAN INC \$35.3m (87%)	Gregory T. Lucier LIFE TECH. \$33.8m (87%)	Martine A. Rothblatt UNITED THERAPEUTICS \$31.6m (89%)	William C. Weldon JOHNSON & JOHNSON \$25.5m (17%)	James C. Mullen BIOGEN \$24.6m (93%)
2011	John C. Martin GILEAD SCIENCES \$43.2m (90%)	David E. I. Pyott ALLERGAN INC \$35.8m (86%)	William C. Weldon JOHNSON & JOHNSON \$27.8m (28%)	Jonah Shacknai MEDICIS PHARM \$25.3m (38%)	Robert L. Parkinson, Jr. BAXTER INTERNATIONAL \$22.6m (75%)	John C. Lechleiter LILLY (ELI) & CO \$22.1m (51%)
2012	George D. Yancopoulos REGENERON \$129.8m (98%)	John C. Martin GILEAD SCIENCES \$85.5m (94%)	Robert J. Coury MYLAN NV \$68.6m (69%)	Leonard S. Schleifer REGENERON \$52.5m (93%)	Leonard Bell ALEXION \$41.6m (91%)	David E. I. Pyott ALLERGAN INC \$41.4m (88%)
2013	John C. Martin GILEAD SCIENCES \$168.9m (97%)	Paul M. Bisaro ALLERGAN PLC \$113.2m (97%)	John F. Milligan GILEAD SCIENCES \$79.7m (97%)	George D. Yancopoulos REGENERON \$74.5m (96%)	Leonard S. Schleifer REGENERON \$73.5m (96%)	Robert J. Hugin CELGENE \$46.4m (81%)
2014	Leonard Bell ALEXION \$195.8m (98%)	John C. Martin GILEAD SCIENCES \$192.8m (97%)	Leonard S. Schleifer REGENERON \$101.8m (97%)	Robert J. Hugin CELGENE \$96.3m (89%)	John F. Milligan GILEAD SCIENCES \$89.5m (97%)	Rajat Rai AKORN \$75.8m (97%)
2015	John C. Martin GILEAD SCIENCES \$232.0m (98%)	George D. Yancopoulos REGENERON \$104.5m (97%)	John F. Milligan GILEAD SCIENCES \$103.4m (97%)	Martine A. Rothblatt UNITED THERAPEUTICS \$96.7m (98%)	Norbert W. Bischofberger GILEAD SCIENCES \$95.5m (98%)	Rajat Rai AKORN \$67.3m (97%)
2016	John C. Martin GILEAD SCIENCES \$98.4m (96%)	Leonard S. Schleifer REGENERON \$93.6m (96%)	George D. Yancopoulos REGENERON \$73.3m (96%)	John F. Milligan GILEAD SCIENCES \$57.8m (93%)	Robert J. Coury MYLAN NV \$56.3 million (20%)	Kenneth C. Frazier MERC & CO \$38.6m (76%)
2017	George D. Yancopoulos REGENERON \$267.8m (99%)	Leonard S. Schleifer REGENERON \$95.3m (95%)	Jeffrey Marc Leiden VERTEX \$78.5m (94%)	John C. Martin GILEAD SCIENCES \$48.4m (94%)	Richard A. Gonzalez ABBVIE \$41.6m (75%)	Robert J. Hugin CELGENE \$40.5m (90%)
2018	Leonard S. Schleifer REGENERON \$117.8m (96%)	George D. Yancopoulos REGENERON \$92.0m (96%)	Kenneth C. Frazier MERC & CO \$48.8m (84%)	Ian C. Read PFIZER \$47.0m (88%)	Alex Gorsky JOHNSON & JOHNSON \$46.4m (88%)	Jeffrey Marc Leiden VERTEX \$32.6m (85%)
2019	Leonard S. Schleifer REGENERON \$116.0m (96%)	George D. Yancopoulos REGENERON \$91.3m (96%)	Jeffrey Marc Leiden VERTEX \$82.6m (94%)	Kenneth C. Frazier MERC & CO \$55.6m (79%)	Ian C. Read PFIZER \$49.7m (89%)	David A. Ricks LILLY (ELI) & CO \$30.8m (71%)
2020	George D. Yancopoulos REGENERON \$286.0m (98%)	Leonard S. Schleifer REGENERON \$174.4m (97%)	Daniel P. Van Plew REGENERON \$91.2m (98%)	Jeffrey Marc Leiden VERTEX \$90.6m (97%)	Lorence H. Kim MODERNA \$89.7m (99%)	Tal Zaks MODERNA \$68.8m (98%)
2021	Leonard S. Schleifer REGENERON \$452.7m (99%)	Juan Andres MODERNA \$195.9m (99%)	George D. Yancopoulos REGENERON \$178.4m (96%)	Stephen Hoge MODERNA \$167.7m (99%)	David A. Ricks LILLY (ELI) & CO \$52.2m (87%)	John L. Higgins LIGAND PHARMA. \$48.2m (97%)
2022	Stéphane Bancel MODERNA \$397.6m (99%)	Kenneth C. Frazier MERC & CO \$118.4m (97%)	Stephen Hoge MODERNA \$63.5m (96%)	Martine A. Rothblatt UNITED THERAPEUTICS \$61.5m (91%)	David A. Ricks LILLY (ELI) & CO \$53.3m (92%)	Daniel P. Van Plew REGENERON \$48.0m (96%)

Notes: Abbvie is a 2013 spinoff from Abbott Laboratories; Life Technologies was created by the merger of Invitrogen and Applied Biosystems in 2008, with Gregory T. Lucier as the CEO of Invitrogen and, then, Life Technologies.

Source: S&P ExecuComp database and company proxy statements

Propelling Martin's megapay in 2013-2015 were surges of Gilead's profits and stock price, based on massive revenues from its price-gouged Sovaldi/Harvoni drugs, aided by \$15.3 billion in buybacks in 2014-2015 and Gilead's first dividend (\$1.9 billion) in 2015. From 2012 to 2015, Gilead's revenues increased by 3.4 times, its profits by 7.0 times, and its stock price by 4.4 times (July 2012 to its all-time peak in July 2015). In 2016, Gilead distributed \$11.0 billion in buybacks and \$2.5 billion in dividends—a combined 99.7 percent of net income—but its profits declined from \$18.1 billion to \$13.5 billion, and its stock price declined from \$118 (July 2015) to \$72

(December 2016). As a result, CEO Martin's 2016 compensation fell to \$98.4 million—a sum which nevertheless placed him at the top of the pharma executive-pay podium for that year.

The established “Old Economy” companies known as Big Pharma, including Wyeth (founded 1860, IPO in 1926), Abbott (1888, 1929), Johnson & Johnson (1886, 1944), and Merck (1891, 1941), were better represented among the top six in the earlier years, including four from Merck in 2009. Both 2018 and 2019 were bountiful years for Big Pharma executives, with Merck's Frazier and Pfizer's Read at, respectively, #3 and #4 in 2018 and #4 and #5 in 2019. Johnson & Johnson CEO Alex Gorsky was #5 in 2018, and Lilly CEO David Ricks #6 in 2019, #5 in 2021, and #5 in 2022.<sup>45</sup>

In 2020 and 2021, Regeneron's Yancopoulos and Schleifer took turns at #1, with three Regeneron executives holding the top three positions in 2020. Looking back a decade to 2012, Yancopoulos was #1 and #2 three times each, #3 twice, and #4 once, while Schleifer was also #1 and #2 three times each as well as #3, #4 and #5 once each. Moderna's massive stock-price explosion, based on its involvement in the development, manufacture, and delivery of the Covid-19 vaccine, enabled two of its executives to enter the top six in 2020, and then two different executives in 2021. Not in the top six in 2020 or 2021 were Moderna's chairman Noubar Afeyan and CEO Stéphane Bancel, both of whom took home vast fortunes by selling founders' shares at high stock prices, propelled by Moderna's control over one of the two mRNA Covid-19 vaccines approved for emergency use by the FDA in December 2020.<sup>46</sup> As CEO, however, Bancel grabbed the top spot in 2022, with \$397.6 million in executive compensation, 99 percent of it from stock-based pay.

Bancel's 2022 take-home pay of \$397.6 million was second all-time among pharmaceutical executives, behind only Leonard Schleifer's haul of \$457.2 million in 2021. Be aware, however, that these extraordinarily huge sums that flowed into the bank accounts of each of these executives are *not* the numbers reported in the Summary Compensation Table (SCT) in Moderna and Regeneron's proxy statements. In Regeneron's SCT for 2021, the reported total compensation for Schleifer is \$6.4 million because he was not granted any stock options or stock awards in that year. In Moderna's SCT for 2022 the reported total compensation for Bancel is \$19.4 million, which includes the “estimated fair value” of his option grants was \$10.8 million and his award grants was \$3.6 million. As Hopkins and Lazonick explain,<sup>47</sup> the use of grant-dare values for stock options and stock awards both misstates the actual incomes of these executives in the functions as CEOs and obscures their personal incentives to allocate corporate resources to buybacks and dividends to increase their own realized gains from stock-based pay.

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<sup>45</sup> Note that Lilly CEO Ricks has sounded off about the damage that IRA drug-price regulation will do to drug innovation. Annika Kim Constantino, “Eli Lilly CEO says Medicare price negotiations could harm drug development,” [CNBC](#), June 13, 2023. In his first six years as Lilly CEO from 2017 through 2022, Ricks increased the company's buybacks to \$12.1 billion from \$4.6 billion in the previous six years, with total distributions to shareholders climbing from 84 percent to 96 percent of net income that was 42 percent higher under Ricks.

<sup>46</sup> Giacomo Tognini, “VC firm of Moderna chairman sold \$1.4 billion of stock in two months,” [Forbes](#), April, 22, 2021; Spencer Kimball, “Moderna CEO Stéphane Bancel has sold more than \$400 million of company stock during the pandemic,” [CNBC](#), March 17, 2022. See also Öner Tulum and William Lazonick, “Science for Money, or Money for Science? The mRNA Business Models of Moderna and BioNTech,” Academic-Industry Research Network, forthcoming.

<sup>47</sup> See also above, note 39.

### ***Financialization of the largest medical-equipment and medical-supply distribution companies***

Table 4 shows the financialization of some of the leading US corporations that produce medical equipment. Over the past decade, the Medtronic, the largest US-based company in this segment, has distributed 121 percent of net income to shareholders, with 55 percent as buybacks. Becton Dickinson, the second largest US-based medical equipment company, distributed the same proportion of its profits as dividends as did Medtronic, but exercised more restraint in doing buybacks. Nevertheless, for Becton Dickinson, distributions to shareholders were 95 percent of net income for the decade 2013-2022.

As CEO of Medtronic from 2011 to 2019, S. Omar Ishrak took home an annual average total compensation of \$19.0 million, of which 49 percent was stock based. As CEO of Becton Dickinson from 2012 to 2019, Vincent A. Forlenza received an annual average total compensation of \$21.2 million, of which 74 percent was stock based.

**Table 4. Distributions to shareholders by the largest US-based medical-equipment companies, 2003-2022**

		REV, \$b	NI, \$b	DV, \$b	BB, \$b	DV/NI%	BB/NI%	(DV+BB)/NI%	Employees*
<b>Medtronic</b>	2003-2012	135.4	26.8	7.1	13.2	26	49	76	46,659
	2013-2022	278.3	38.2	25.2	21.1	66	55	121	95,000
Becton Dickinson	2003-2012	64.3	9.5	2.6	7.0	27	74	101	29,555
	2013-2022	140.9	11.5	7.6	3.3	66	29	95	77,000
<b>Stryker</b>	2003-2012	61.9	9.6	1.4	2.2	15	23	37	22,010
	2013-2022	130.8	17.2	6.9	2.7	40	15	56	51,000
Boston Scientific	2003-2012	70.5	-9.7	0.0	2.8	0	-29	-29	24,000
	2013-2022	94.5	8.0	0.1	1.7	2	21	23	45,000

Notes: REV=revenues, NI=net income, BB=stock buybacks, DV=dividends. \*Employees at the end of 2012 and 2022.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.

Not on the list of US-based medical-equipment companies is Philips Respironics, with its corporate headquarters in the Netherlands. The Respironics division is located near Pittsburgh PA. Following up on research by Lazonick and Hopkins on the ventilator shortage during the first months of the SARS-CoV-2 pandemic,<sup>48</sup> Hopkins has done a study of the growth of Respironics as an innovative enterprise, from a startup founded by Gerald McGinnis in 1971 to \$1.2 billion in revenues and 4,900 employees in 2007, when, as a steady innovator in respiratory equipment, Forbes named it the best medical-equipment company in the United States. Listed on NASDAQ in 1988, throughout its history Respironics never paid out dividends and it did just a small amount of stock buybacks when its stock price was down in the late 1990s, using the repurchased stock for the stock-based pay of its senior executives. When Philips acquired Respironics in 2008, the Netherland-based company was already highly financialized, contributing to both its failure to deliver contracted ventilators to the US Strategic National Stockpile in 2019 and 2020 as well as,

<sup>48</sup> William Lazonick and Matt Hopkins, "How 'Maximizing Shareholder Value' Minimized the Strategic National Stockpile," [Institute for New Economic Thinking Working Paper](#) No. 127, July 21, 2020.

more recently, a disastrous recall of Respironics equipment because of foam-related health risks.<sup>49</sup>

A medical equipment company that is US-based but it not included in Table 4 is GE HealthCare. Spun off from General Electric (GE) as a publicly listed company, with 49,000 employees, on January 4, 2023, the data on distributions to shareholders that are applicable to GE HealthCare are for GE as a whole, as displayed in Table 5.

**Table 5. Distributions to shareholders by General Electric, 1988-2022**

General Electric	REV, \$b	NI, \$b	DV, \$b	BB, \$b	DV/NI%	BB/NI%	(DV+BB)/NI%	Employees*
<b>1988–1992</b>	277.3	19.0	8.1	7.4	43	39	82	231,000
<b>1993-1997</b>	355.6	31.1	13.8	10.1	45	33	77	276,000
<b>1998-2002</b>	595.1	60.6	27.4	12.9	45	21	67	315,000
<b>2003-2007</b>	764.5	91.6	47.2	27.5	52	30	82	327,000
<b>2008-2012</b>	772.1	67.9	39.8	12.1	59	18	77	305,000
<b>2013-2017</b>	642.5	25.2	43.4	41.2	172	163	336	313,000
<b>2018-2022</b>	447.2	-28.2	7.0	1.2	-25	-4	-29	172,000

Notes: REV=revenues, NI=net income, BB=stock buybacks, DV=dividends. \*Employees at the end of 2012 and 2022.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.

A once-iconic US company, in 2010-2019 GE was No. 14 among the largest industrial repurchasers, with \$50.3 billion in buybacks (135 percent of net income) and \$67.0 billion in dividends (another 179 percent of net income).<sup>50</sup> On October 5, 2015, Nelson Peltz's Trian Partners made public a whitepaper, splashed with GE's logo, entitled, "Transformation Underway...But Nobody Cares,"<sup>51</sup> disclosing that the hedge fund had accumulated \$2.5 billion of GE's stock—its largest ever stake in a company but only about 0.9 percent of GE's outstanding shares.<sup>52</sup> In its whitepaper, Trian claimed that it was engaging in "constructive dialogue" with GE,<sup>53</sup> and that it believed that, by implementing Trian's "advice," GE could boost its stock price to \$45 by 2017—a 180 percent increase in two years. That is, Trian expected to transform its \$2.5 billion stake into one worth \$4.5 billion on the market plus any dividends received over the period. GE CEO Jeffrey Immelt and CFO Jeffrey Bornstein were quoted by the *Wall Street Journal* as being "completely aligned on the levers" suggested by Trian to get GE "from point A to point

<sup>49</sup> Ibid.; Matt Hopkins, Strategic Control and the Role of Executive Compensation in the Innovation or Financialization of Firms, Thesis submitted for the degree of PhD, Department of Economics, SOAS University of London, March 2024; Michael Korsh and Evan Robinson-Johnson, "After CPAP recall, Philips must institute new safeguards in agreement With U.S. justice department," *ProPublica*, April 9, 2024.

<sup>50</sup> The following draws on William Lazonick and Matt Hopkins, "General Electric in the Grip of Predatory Value Extractors," Academic-Industry Research Network unpublished note, April 4, 2021, as a contribution to Nick Juravich and Arthur C. Wheaton, "Building a Sustainable Future for General Electric in Schenectady, New York, and Lynn, Massachusetts," School of Industrial and Labor Relations, Cornell University, and Labor Resource Center, UMass Boston, November 2021.

<sup>51</sup> Trian Partners, "Transformation Underway...But Nobody Cares," *Trian Partners Whitepaper*, October, 5, 2015,.

<sup>52</sup> David Benoit and Ted Mann, "Activist firm Trian takes \$2.5 billion stake in General Electric," *Wall Street Journal*, October 5, 2015,.

<sup>53</sup> Trian Partners, "Transformation Underway," p.6.

B.” Referring to Trian’s proposal to jack up GE’s stock price by doing large-scale buybacks, Immelt stated: “The repurchase opportunity is right in front of us.”<sup>54</sup>

In 2016, GE distributed \$8.8 million in dividends, just a shade under 100 percent of net income, plus \$22.6 billion in buybacks, 256 percent of net income. In the first quarter of 2017, however, Peltz let it be known that he wanted CEO Immelt out, and by June Immelt announced that he was stepping down.<sup>55</sup> In October 2017, Peltz got GE to put his son-in-law and Trian partner Edward Garden on the company’s board.<sup>56</sup> From 2016 to 2021, GE’s revenues declined from \$119.7 billion to \$74.2 billion, and its worldwide employment from 295,000 to 168,000. Over the years 2017-2021, the company losses totaled \$36.8 billion. In November 2021, GE announced that it would be broken up into three companies, engaged in energy, medical equipment, and aviation—the industrial activities on which beginning in the last decades of the 19<sup>th</sup> century the company had been built.<sup>57</sup> While Peltz had sold chunks of GE stock at different points in time, the company’s shares still represented about five percent of Trian’s portfolio,<sup>58</sup> and Peltz and Garden pushed for the GE break up as a way of “creating” shareholder value for themselves.

Table 6 shows distributions to shareholders by the five leading US-based medical-supply companies. In the decade 2003-2012, the big three—McKesson, AmerisourceBergen, and Cardinal Health—were already distributing cash to shareholders equaling 100 percent or more of net income.

**Table 6. Distributions to shareholders, largest US-based medical-supply companies, 2003-2022**

		REV, \$b	NI, \$b	DV, \$b	BB, \$b	DV/NI%	BB/NI%	(DV+BB)/NI%	Employees*
<b>McKesson</b>	2003-2012	1,005.4	9.2	1.2	9.8	13	107	119	43,500
	2013-2022	2,138.7	11.2	2.6	17.7	23	158	182	51,000
<b>AmerisourceBergen</b>	2003-2012	664.3	4.9	0.5	6.7	11	136	147	14,500
	2013-2022	1,633.5	4.7	3.0	8.1	65	172	236	44,000
<b>Cardinal Health</b>	2003-2012	864.2	12.0	1.6	10.5	13	87	100	32,500
	2013-2022	1,325.3	3.0	5.2	6.1	171	203	374	46,500
<b>Henry Schein</b>	2003-2012	61.1	2.4	0.0	0.9	0	37	37	15,000
	2013-2022	112.9	5.1	0.0	3.7	0	73	73	22,000
<b>Owens &amp; Minor</b>	2003-2012	66.9	0.8	0.3	0.0	39	5	44	6,500
	2013-2022	94.6	0.2	0.4	0.1	156	53	208	22,500

Notes: REV=revenues, NI=net income, BB=stock buybacks, DV=dividends. \*Employees at the end of 2012 and 2022.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.

McKesson ramped up both its dividends and buybacks in 2013-2022, for a combined 182 percent of net income. AmerisourceBergen’s increase in buybacks from the one decade to the next was more restrained than McKesson’s, but, with much smaller and stagnant profit, its combined distributions soared to 236 percent of net income in 2013-2022. At Cardinal Health, a 75 percent

<sup>54</sup> Benoit and Mann, “Activist firm Trian.”

<sup>55</sup> Ronald Orol, “Here’s how activist Nelson Peltz turned the lights out on GE CEO Jeff Immelt,” *The Street*, June 12, 2017.

<sup>56</sup> Thomas Gryta, David Benoit, and Joann S. Lublin, “GE gives activist Trian a seat on the board,” *Wall Street Journal*, October 9, 2017.

<sup>57</sup> Jesse Pound, “GE to break up into 3 companies, focusing on aviation, health care, and energy,” *CNBC*, November 9, 2021.

<sup>58</sup> John Vincent, “Tracking Nelson Peltz’s Trian Fund Management Portfolio—Q42021,” *Seeking Alpha*, February 20, 2022.

fall in profits from 2003-2012 to 2013-2022 led the payout proportion to increase to 274 percent in the second decade, even though it reduced its buybacks from \$10.5 billion to (a still “generous”) \$6.1 billion.

As CEO of McKesson from 2000 to 2017, John H. Hammergren had an annual average total compensation of \$53.6 million, of which 71 percent was stock based. As CEO of AmerisourceBergen from 2012 to 2019, Steven H. Collis garnered an annual average total compensation of \$19.9 million, of which 83 percent was stock based. As CEO of Cardinal Health from 2010 to 2018, George S. Barrett reaped an annual average total compensation of \$20.2 million, of which 83 percent was stock based.

### ***Financialization of the health-insurance companies***

Patients get access to healthcare services through health insurers, which, by treating individual subscribers as members of broad risk categories, can sell health insurance coverage as if it is a good, reach company potentially reaping economies of scale on administrative overhead as the number of policy holders increases. Through consolidation, the market is dominated by seven publicly listed health insurers—United Health Group, Centene, Humana, CVS Health (which owns Aetna), Molina, Cigna, and Elevance. Other large health insurers are member-owned Health Care Insurance Corporation and not-for-profit Kaiser Permanente. Four of the corporations among the top seven publicly listed health insurers also own the four largest prescription benefits managers (PBMs): CVS Health (Caremark), with a 33-percent market share; Cigna (Express Scripts), 24 percent; UnitedHealth Group (OptumRx), 22 percent; and Humana (Humana Pharmacy Solutions), eight percent.<sup>59</sup>

Table 7 shows distributions to shareholders at the seven largest publicly listed insurance companies for 2003-2012 and 2013-2022. All seven showed enormous increases in profits as well as substantial increases in employment from the one decade to the next. Of the top four companies by revenues over the most recent decade, average annual buybacks were \$3.7 billion at UnitedHealth, \$2.6 billion at CVS Health, \$1.9 billion at Elevance, and \$2.8 billion at Cigna.

Ultimately, the manipulative boosts that these buybacks give to the health insurers’ stock prices come out of the pockets of US households in the form of higher insurance premiums. Or as former Cigna executive Wendell Potter puts it in an article on health insurers’ buybacks and CEO pay in 2022: “Big health insurance companies have been on a spending spree buying back shares of their own stock, a gimmick...that has made a few insurance company CEOs incredibly rich at a time when 100 million Americans are saddled with medical debt.”<sup>60</sup>

As CEO of UnitedHealth Group from 2000 to 2017, Stephen J. Helmsley banked an annual average total compensation of \$37.3 million, of which 86 percent was stock based. His successor, Andrew Witty, took home an annual average of \$17.0 million (79 percent stock-based) for 2018-2023,

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<sup>59</sup> Stephanie Guinan, “Largest insurance companies of 2023,” [ValuePenguin](#), June 23, 2023; Paige Twenter, “Top PBMs, by 2022 market share,” [Becker’s Hospital Review](#), May 23, 2023.

<sup>60</sup> Wendell Potter, “The system makes patients sick and CEOs rich,” [The Lever](#), June 20, 2023.

while Brian Thompson, CEO of wholly owned subsidiary UnitedHealthcare reaped an annual average of \$9.5 million (73 percent stock-based) for 2021-2023, As CEO of CVS Health from 2012 to 2019, Larry J. Merlo pulled in an annual average total compensation of \$25.2 million, of which 52 percent was stock based. As CEO of Anthem (now Elevance) from 2013 to 2017, Joseph R. Swedish pocketed an annual average total compensation of \$14.9 million, of which 67 percent was stock based. As CEO of Cigna from 2010 to 2018, David Michael Cordani laid his hands on an annual average total compensation of \$32.4 million, of which 84 percent was stock based.

**Table 7. Distributions to shareholders, largest US-based health-insurance companies, 2003-2022**

		REV, \$b	NI, \$b	DV, \$b	BB, \$b	DV/NI%	BB/NI%	(DV+BB)/NI%	Employees*
<b>UnitedHealth</b>	2003-2012	733.3	38.6	2.1	29.6	5	77	82	133,000
	2013-2022	2,133.4	113.3	32.3	37.4	29	33	62	400,000
<b>CVS Health</b>	2003-2012	727.2	24.7	3.6	16.7	15	68	82	203,000
	2013-2022	2,116.0	51.7	20.6	26.2	40	51	91	300,000
<b>Elevance</b>	2003-2012	504.5	26.1	0.7	27.1	3	104	107	43,500
	2013-2022	1,012.4	39.2	7.9	19.0	20	48	68	102,300
<b>Cigna</b>	2003-2012	197.1	11.9	0.4	7.3	3	61	64	35,800
	2013-2022	903.3	38.0	2.7	27.9	7	73	81	71,300
<b>Centene</b>	2003-2012	34.4	0.5	0.0	0.1	0	13	13	6,800
	2013-2022	655.4	8.8	0.0	4.4	0	50	50	74,300
<b>Humana</b>	2003-2012	256.2	7.6	0.2	1.5	3	19	23	43,400
	2013-2022	627.0	20.2	2.5	11.4	13	56	69	67,100
<b>Molina</b>	2003-2012	29.8	0.4	0.0	0.1	0	31	31	5,800
	2013-2022	183.0	3.4	0.0	1.3	0	40	40	15,000

Notes: REV=revenues, NI=net income, BB=stock buybacks, DV=dividends. \*Employees at the end of 2012 and 2022.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.

### ***Financialization of some of the largest publicly listed hospitals and medical retirement facilities***

Most hospitals and medical retirement facilities in the United States are either nonprofit or privately held (often by private-equity firms, as we discuss below). Table 8 displays the distributions to shareholders by the ten largest hospitals and facilities by revenues, 2013-2022, that were publicly listed on a stock market.

**Table 8. Distributions to shareholders, largest hospitals and medical retirement facilities, 2013-2022**

Company Name	REV, \$b	NI, \$b	DV, \$b	BB, \$b	DV/NI%	BB/NI%	(DV+BB)/NI%
<b>HCA HEALTHCARE</b>	<b>495.2</b>	<b>38.0</b>	<b>3.1</b>	<b>31.0</b>	<b>8</b>	<b>82</b>	<b>90</b>
TENET HEALTHCARE	187.6	1.2	0.0	0.5	0	41	41
<b>COMMUNITY HEALTH SYSTEMS</b>	<b>148.1</b>	<b>-4.7</b>	<b>0.0</b>	<b>0.2</b>	<b>0</b>	<b>-5</b>	<b>-5</b>
UNIVERSAL HEALTH SERVICES	110.9	7.6	0.4	5.0	6	66	72
<b>SELECT MEDICAL HOLDINGS</b>	<b>50.8</b>	<b>1.9</b>	<b>0.2</b>	<b>0.5</b>	<b>13</b>	<b>27</b>	<b>40</b>
ENCOMPASS HEALTH	40.9	2.9	0.9	0.3	32	12	44
<b>BROOKDALE SENIOR LIVING</b>	<b>39.0</b>	<b>-2.8</b>	<b>0.0</b>	<b>0.1</b>	<b>0</b>	<b>-3</b>	<b>-3</b>
PEDIATRIX MEDICAL GROUP	26.6	-0.6	0.0	1.4	0	-238	-238
<b>ACADIA HEALTHCARE</b>	<b>24.5</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0</b>	<b>76</b>	<b>76</b>
SURGERY PARTNERS	16.8	-0.6	0.1	0.0	-17	-1	-18

Notes: REV=revenues, NI=net income, BB=stock buybacks, DV=dividends.

Sources: Calculations from data in the S&P Compustat database and company 10-K reports.



From 2013 through 2022, HCA Healthcare, by far the largest publicly listed hospital chain, did an annual average of \$3.1 billion in buybacks, representing 82 percent of net income. In 2023, HCA did \$3.8 billion in buybacks (62 percent of net income) and paid out \$661 million as dividends (11 percent of net income). Samuel Hazen, who has worked for the company for over 40 years, raked in an annual average of \$43.4 million (77 percent stock-based) as CEO from 2019 to 2023. Previously, Hazen's average annual total compensation was \$4.3 million (33 percent stock-based) as president of HCA's Western Group, 2001-2010; \$14.5 million (59 percent stock-based) as HCA president of operations, 2011-2014; and \$21.1 million (79 percent stock-based) as HCA chief operating officer, 2015-2018.

***Maximizing shareholder value: Value-extracting insiders, enablers, and outsiders***

Senior corporate executives have embraced shareholder-value ideology since the late 1980s, but they have not acted alone. In *Predatory Value Extraction*, Jang-Sup Shin and I classify senior executives as value-extracting *insiders*, institutional shareholders as value-extracting *enablers*, and hedge-fund activists as value-extracting *outsiders*.<sup>61</sup> There now exists in the United States a corrupt proxy-voting system that obliges asset-fund managers to vote the proxies for the stocks in their securities portfolios, enabling shareholder activists with a stake of, say, one percent of a company's outstanding shares to assert immense pressure on corporate executives and directors to engage in downsize-and-distribute. Among the most rapacious hedge-fund activists are William Ackman (Pershing Square), Carl Icahn (Icahn Enterprises), Daniel Loeb (Third Point Partners), Nelson Peltz (Trian Partners), Barry Rosenstein (JANA Partners), Jeffrey Smith (Starboard Value), and Paul Singer (Elliott Management).

We have already discussed, as a prime example, the case of Peltz and GE. Trian Partners has never held more than 0.9 percent of GE's shares outstanding, and not one cent of the money that Trian spent on acquiring those shares flowed into GE's coffers. So how have Peltz and son-in-law Garden been able to exercise so much power over GE's resource-allocation decisions? What follows is a brief summary of the analysis that Shin and I lay out in chapter five of *Predatory Value Extraction*.<sup>62</sup>

In 1988, the U.S. Department of Labor issued what has become known as the "Avon letter," which deemed it a fiduciary obligation for pension funds to vote the shares in their asset portfolios. In 2003, a ruling by the SEC extended this fiduciary obligation to mutual funds,<sup>63</sup> thus making it much easier for a hedge-fund activist with only a small percentage of a company's shares outstanding to line up a large block of proxy votes for board elections and thus pose a credible threat to incumbent management's strategic control. In mobilizing the proxy votes, the activists can get help by lobbying the two major proxy advisory services companies, ISS and Glass Lewis,

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<sup>61</sup> Lazonick and Shin, *Predatory Value Extraction*.

<sup>62</sup> For a subsequent elaboration of this argument, see Jang-Sup Shin, *The Rhetoric and Reality of Shareholder Democracy and Hedge-Fund Activism*, Cambridge Elements: Corporate Governance, Cambridge University Press, forthcoming.

<sup>63</sup> U.S. Securities and Exchange Commission, "Final Rule: Disclosure of Proxy Voting Policies and Proxy Voting Records by Registered Management Investment Companies," 17 CFR Parts 239, 249, 270, and 274; [Release Nos. 33-8188](#), 34-47304, IC-25922; File No. S7-36-02, April 14, 2003.

which emerged, unregulated, to dominate this specialized segment as a result of the 2003 SEC ruling, to recommend to institutional investors a slate of value-extracting candidates for election to the corporate board.<sup>64</sup>

Meanwhile, in the 1990s, regulatory changes had increased the tools available to hedge funds to attack incumbent corporate management, as well as the size of the “war chests” (to use Carl Icahn’s term<sup>65</sup>) under hedge-fund management available to finance the value-extracting attacks. In 1992 and 1999, SEC amendments to its proxy regulations enabled asset managers to communicate freely among themselves and with corporate management concerning issues of corporate control. As a result, it became much easier for hedge funds to form de facto cartels for activist campaigns.<sup>66</sup>

The National Securities Markets Improvement Act of 1996<sup>67</sup> augmented the regulatory power of the federal government, and especially the SEC, vis-à-vis the states in amending the Investment Company Act and Investment Advisers Act, both of 1940, and removed the size restrictions on hedge funds and private-equity funds that had previously been limited to 99 investors to be eligible for exemption from regulation under these Acts. As a result, assets under management by unregulated hedge funds (and private-equity funds) soared from the late 1990s, augmenting the financial power of hedge-fund activists to engage in predatory value extraction while giving fund managers of pensions and university endowments, among others, stakes in activist campaigns in their quest for higher yields on their financial-security portfolios.

Academic cover for both the stock-based pay of CEOs as value-extracting insiders and the buybacks that help boost the gains of hedge-fund managers as value-extracting outsiders has come from a species of professional economists known as “agency theorists,” whose rationale for distributing profits to shareholders in the form of not only dividends but also buybacks is that shareholders, and shareholders alone, make risky investments in the business corporation, without a guaranteed return, and hence only shareholders have a claim on profits if and when they occur.<sup>68</sup> The theory assumes that other stakeholders in the corporation, including workers, receive guaranteed prices (e.g., wages) for their productive contributions. Agency theory, however, overstates the risks borne by shareholders in making corporate investments, while ignoring risky investments in productive resources by not only workers but also taxpayers that can enable business corporations to generate revenues and profits.

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<sup>64</sup> Shin, “The Subversion of Shareholder Democracy”: Lazonick and Shin, *Predatory Value Extraction*, ch. 5.

<sup>65</sup> Lazonick et al., “What We Learn about Inequality.”

<sup>66</sup> Lazonick and Shin, *Predatory Value Extraction*, pp. 109-111. See John C. Coffee and Darius Palia, “The Wolf at the Door: The Impact of Hedge-Fund Activism on Corporate Governance,” *Annals of Corporate Governance*, 1, 1, 2016: 1-94.

<sup>67</sup> U.S. Congress, “National Securities Markets Improvement Act of 1996,” [Public Law 104-290](#), October 11, 1996; Paul S. Stevens and Craig S. Tyle, “Mutual Funds, Investment Advisers, and the National Securities Markets Improvement Act,” *Business Lawyer (ABA)* 52, 2, 1996-1997: 419-478; David Dayen, “What Good are Hedge Funds?” *American Prospect*, Spring 2016.

<sup>68</sup> William Lazonick, “Innovative Enterprise Solves the Agency Problem: The Theory of the Firm, Financial Flows, and Economic Performance,” [Institute for New Economic Thinking](#) Working Paper No. 62, August 28, 2017; Lazonick, “Maximizing Shareholder Value as an Ideology of Predatory Value Extraction.”

The fact is that public shareholders do not, as a rule, invest directly in the firm. Rather, once a firm is publicly listed, households or asset managers become shareholders by purchasing shares outstanding on the stock market. In placing their funds in shares listed on a highly liquid stock market such as NYSE or NASDAQ, public shareholders take little risk; they enjoy limited liability if they hold the shares and, given the liquidity of the stock market, at any instant and at a very low transaction cost they can sell the shares at the going market price.

In other words, public shareholders are value extractors, not value creators. They are households as functioning as savers, not as investors. The generation of innovative products requires value-creating investments in productive capabilities, which are inherently illiquid and hence risky.

Investments in innovation are uncertain, collective, and cumulative. An innovative enterprise requires strategic control to confront uncertainty, organizational integration to engage in collective learning, and financial commitment to sustain cumulative learning until a higher-quality, lower-cost product is generated.<sup>69</sup> When, as in the case of a start-up, financiers make equity investments in the absence of a liquid market for the company's shares, these early investors in the company's value-creating capabilities face the risk that the firm will not be able to generate an innovative product. Even then, however, their risk is mitigated by the existence of a highly liquid stock market on which the firm can do an initial public offering (IPO), permitting these financial investors to reap financial returns, often before the company has generated a commercial product, let alone a profit.<sup>70</sup>

To make such a speculative and liquid market available to private-equity investors, NASDAQ was launched in 1971 by electronically linking the previously fragmented, and hence relatively illiquid, over-the-counter markets. NASDAQ became an inducement to direct investment in start-ups precisely because it offered the prospect of a quick IPO taking place within just a few years after a firm was founded. For that reason, venture capitalists can use a quotation on NASDAQ as an *exit strategy*. In effect, through an IPO, they can exit an illiquid, high-risk direct investment by turning it into a liquid, low-risk portfolio investment. After an IPO, if the former direct investors decide to hold on to their shares, they are in the same portfolio-investor position as any other public shareholder: they can use the stock market to buy and sell shares at low transaction cost whenever they so choose.

As private shareholders, therefore, venture capitalists bear the risk of making direct investments in productive resources, but since the 1970s institutions have evolved in the United States that can make that risk ephemeral by enabling venture capitalists to transform their illiquid private equity holdings into liquid public equity holdings. In contrast, households as taxpayers, through government agencies, and as workers, through the business corporations that employ them, also bear risk in making investments in productive resources, but without the availability of financial markets for monetizing the productive assets in which they have invested. From this perspective,

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<sup>69</sup> Lazonick, "The Theory of Innovative Enterprise."

<sup>70</sup> See Lazonick and Tulum, "US Biopharmaceutical Finance."

households as both taxpayers and workers invest in innovation and have valid economic claims on the distribution of profits, if they occur.

Through government investments in human capabilities and physical infrastructure, taxpayers regularly provide productive resources to companies without a guaranteed return. For example, businesses that make use of NIH-sponsored research benefit from the public knowledge that it generates. As risk-bearers, taxpayers who fund investments in such research or in physical infrastructure such as roads, have a claim on resulting corporate profits, if they are generated. Through the tax system, governments, representing households as taxpayers, seek to extract this return from corporations that make profitable use of government spending.

No matter what corporate tax rate prevails, however, households as taxpayers face the uncertainty that changes in technological, market, and/or competitive conditions may prevent enterprises from generating profits and the related business tax revenues that serve as a return on the taxpayers' investments in physical infrastructure and human capabilities. Moreover, tax rates are politically determined; households as taxpayers face the political uncertainty that predatory value extractors may convince government policymakers that they will not be able to make value-creating investments unless they are given tax cuts or financial subsidies that will permit adequate profits. Households as taxpayers face the risk that politicians may be put in power who accede to these demands for predatory value extraction.

Through their skills and efforts, workers regularly make productive contributions to the companies for which they work that are beyond the levels required to lay claim to their current pay. However, they do so without guaranteed returns.<sup>71</sup> Any employer who is seeking to generate a higher-quality, lower-cost product knows the profound difference in the productivity levels of those employees who just punch the clock to get their daily pay—what has recently become known as “quiet quitting” among white-collar workers<sup>72</sup>—and those who are committed to supporting the company's goals of generating products that can compete in terms of quality and cost. An innovative company wants workers who apply their skills and efforts to organizational learning so that they can make enduring productive contributions—including those that will enable the development of the firm's next generation of high-quality, low-cost products.

For their part, in making these productive contributions, employees expect that they will be able to build their careers within the company, putting themselves in positions to reap future benefits at work and in retirement. Yet these potential careers and returns are not guaranteed. In fact, under the “downsize-and-distribute” resource-allocation regime that “maximizing shareholder value” (MSV) ideology legitimizes, these careers and returns are generally undermined.<sup>73</sup>

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<sup>71</sup> Lazonick, *Competitive Advantage*; Lazonick, “The Theory of Innovative Enterprise.”

<sup>72</sup> Alyson Krueger, “Who is quiet quitting for?” *New York Times*, August 23, 2022, Greg Rosalsky and Alina Selyukh, “The economics behind ‘quiet quitting’—and what we should call it instead,” *NPR*, September 13, 2022.

<sup>73</sup> William Lazonick, “Stock Buybacks: From Retain-and-Reinvest to Downsize-and-Distribute,” Center for Effective Public Management, [Brookings Institution](#), April 2015.

Workers, therefore, supply their skills and efforts to the process of generating innovative products that, if successful, can create value, but they take the risk that their endeavors may be in vain. Far from reaping expected gains in the form of higher remuneration, more job security, and better working conditions, employees could face cuts in pay and benefits, or even find themselves laid off. Even if the innovation process is successful, workers face the possibility that the institutional environment in which MSV prevails will empower corporate executives to cut some workers' wages and lay off other workers—all so that the value they helped to create can be redirected to shareholders, including the senior executives themselves with their copious stock-based pay as well as hedge-fund managers whose stock-trading strategies count buybacks as money in the bank.<sup>74</sup> In short, the corporate resource-allocation strategy may transform from retain-and-reinvest to downsize-and-distribute, with devastating impacts on the realized gains that committed employees had expected and deserved.

As risk-bearers, therefore, taxpayers whose money supports business corporations and workers whose efforts generate productivity improvements have claims on corporate profits, if they occur. MSV ignores the risk-reward relation for households as both taxpayers and workers in the operation and performance of business corporations.<sup>75</sup> MSV implies that public shareholders derive their gains by extracting value as a reward for taking the risk of contributing to processes that create value. Thus, when corporations pay dividends or do buybacks, MSV mischaracterizes these distributions as “returning” capital to shareholders. The irony of MSV is that public shareholders—whom agency theory deems to be the firm's sole risk-bearers—typically never invest in the value-creating capabilities of the company at all. Rather, they purchase outstanding corporate equities on the stock market with the expectation that dividend income will be forthcoming while they hold the shares and that the stock price will have risen to yield a financial gain when they decide to sell the shares.

Agency theorists accept that a company needs to retain some cash flow to maintain the functioning of its physical capital, but they generally view labor as an interchangeable commodity that can be hired and fired as needed on the labor market. In addition, they typically ignore the contributions that households as taxpayers make to business value creation. Rooted in neoclassical theory, MSV assumes that markets, not organizations, allocate resources to their most efficient uses. But lacking a theory of innovative enterprise, agency theory cannot explain how the “most efficient uses” are created and transformed over time.<sup>76</sup>

### ***The rise of private equity in the delivery of healthcare services***

Fortified by MSV ideology and shareholder-friendly regulatory changes, over the past decade, private-equity firms have become heavily involved in the delivery of US healthcare goods and

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<sup>74</sup> Lazonick and Shin, *Predatory Value Extraction*.

<sup>75</sup> Lazonick, “The Financialization of the U.S. Corporation”; William Lazonick and Mariana Mazzucato, “The Risk-Reward Nexus in the Innovation-Inequality Relationship,” *Industrial and Corporate Change*, 22, 4, 2013: 1093–1128; Lazonick, “Maximizing Shareholder Value as an Ideology of Predatory Value Extraction.”

<sup>76</sup> Lazonick, “Is the Most Unproductive Firm.”

services. With a surge of deals during the pandemic, the media was replete with stories on the private-equity invasion. Here is small sampling:

- *New York Times*: “Millions of Americans are turning to therapy, and investors see an opportunity: Buyout firms and venture capitalists are pouring billions of dollars into mental-health clinics and therapy startups.”<sup>77</sup>
- *Kaiser Health News*: “Betting on ‘golden age’ of colonoscopies, private equity invests in gastro docs.”<sup>78</sup>
- *STAT*: “Private equity firms are cashing in on the travel nursing business that has boomed during the pandemic.”<sup>79</sup>
- *Bloomberg*: “Private equity is piling into health.”<sup>80</sup>
- *Fierce Healthcare*: “The FTC and DOJ have vowed to scrutinize private equity deals. Here's what it means for healthcare.”<sup>81</sup>

A few more recent headlines are:

- *Business Insider*: “The plundering of America’s hospitals.”<sup>82</sup>
- *GBH News*: “Warren, Markey knock 'looting' of health care by private equity.”<sup>83</sup>
- *HealthcareDive*: “Senate ramps up scrutiny of private equity ‘greed’ in healthcare.”<sup>84</sup>

Figures 4 and 5 show the number of private-equity deals by count and value, 2007-2023, by sector. Healthcare deals increased from 343 for \$46 billion in 2007 to highs of 1,542 for \$202 billion in 2021, before declining to 972 for \$80 billion in 2022. The value of healthcare deals reached as high as 17.0 percent of the value of all deals in 2021, declining to 11.2 percent in 2022 and 12.4 percent in 2023.<sup>85</sup>

Healthcare services increased steadily from 309 in 2017 to 587 in 2023, representing 43.1 percent of all healthcare deals for 2017-2023, with a high of 60.4 percent in 2023.<sup>86</sup> PitchBook Data Inc. divides healthcare services into four general categories: generalist providers, multispecialty providers, physician practice management companies, and skilled care and behavioral health, with subcategories as displayed in Figure 6. PitchBook (a subscription database) contains information on these deals that can provide starting points for case studies of the operation and performance of healthcare-services organizations that have been formed or taken over by private-equity firms.

<sup>77</sup> Khadeeja Safdar and Gregory Zuckerman, “Millions of Americans are turning to therapy, and investors see an opportunity,” [New York Times](#), May 9, 2022.

<sup>78</sup> Emily Pisacreta and Emmarie Huetteman, “Betting on ‘golden age’ of colonoscopies, private equity invests in gastro docs,” [Kaiser Health News](#), May 27, 2022.

<sup>79</sup> Rachel Cohrs, “Private equity firms are cashing in on the travel nursing business that has boomed during the pandemic,” [STAT](#), February 15, 2022.

<sup>80</sup> Anna Edney, “Private equity is piling into health,” [Bloomberg](#), September 22, 2022.

<sup>81</sup> Anastassia Gliadkovskaya, “The FTC and DOJ have vowed to scrutinize private equity deals. Here's what it means for healthcare,” [Fierce Healthcare](#), October 21, 2022.

<sup>82</sup> Matt Parr, “The plundering of America’s hospitals,” [Business Insider](#), March 1, 2024.

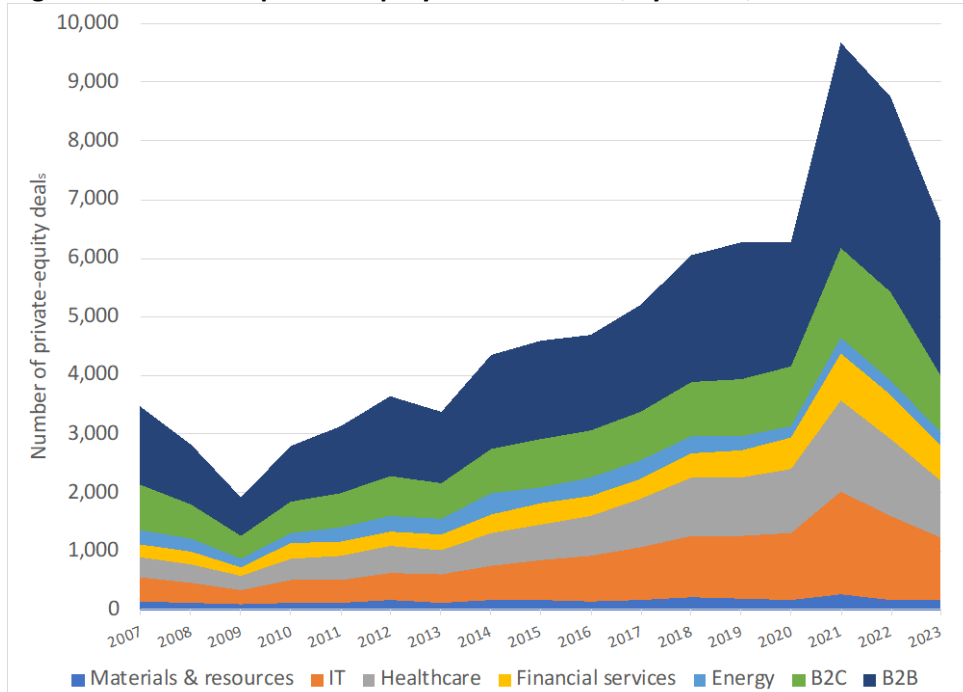
<sup>83</sup> Kate Lannan, “Warren, Markey knock 'looting' of health care by private equity,” [GBH News](#), April 3, 2024.

<sup>84</sup> Susanna Vogel, “Senate ramps up scrutiny of private equity ‘greed’ in healthcare,” [HealthcareDive](#), April 5, 2024.

<sup>85</sup> PitchBook, *US PE Breakdown: 2023 Annual*, PitchBook Data Inc., January 9, 2024, [Excel file](#).

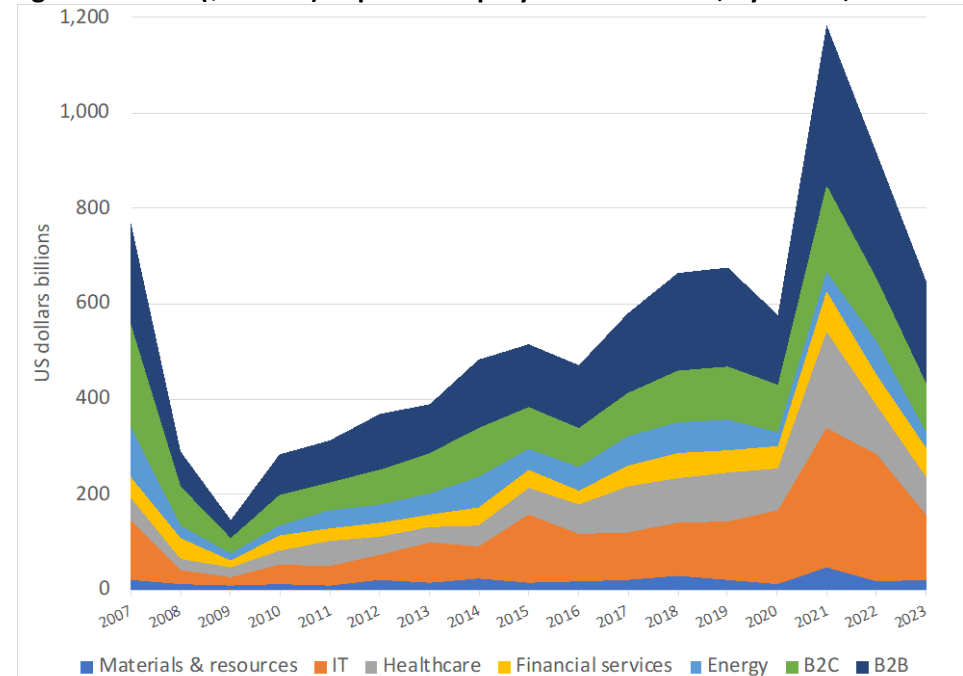
<sup>86</sup> PitchBook, *Healthcare Services Report: Q4 2023*, PitchBook data Inc. February 8, 2024, [Excel file](#).

**Figure 4. Number of private-equity deals in the US, by sector, 2007-2023**



Source: PitchBook, *US PE Breakdown: 2023 Annual*, PitchBook data Inc., January 9, 2024, [Excel file](#).

**Figure 5. Value (\$billions) of private-equity deals in the US, by sector, 2007-2023**



Source: PitchBook, *US PE Breakdown: 2023 Annual*, PitchBook data Inc., January 9, 2024, [Excel file](#).

Figure 6. PitchBook's categorization of the sectors and sub-sectors within the healthcare services industry



Source: PitchBook, *Healthcare Services Report: Q1 2023*, PitchBook data Inc. May 9, 2023, pp. 15-22.

### ***Private equity as plunder***

In the healthcare professions, there is a growing sentiment that private equity's quest for profits comes at the expense of patient care. In 2018, Dr. Barbara McAneny, president of the American Medical Association, issued a warning:

We have to decide whether the goal of a healthcare system is to increase profits, because private equity firms are selecting those parts of healthcare where they can see a profit because their goal is to make profit. The consolidation of various parts of the healthcare industry has been shown to increase prices and decrease choice, and if you're lucky, quality stays about the same. This is just the next wave of that consolidation.<sup>87</sup>

As that consolidation has occurred, with an acceleration during the pandemic, there is growing evidence that, be it in terms of affordability, accessibility, or quality, our luck has run out. Published within ten days of each other in late April-early May 2023, two important books on

<sup>87</sup> Quoted in Shelby Livingston, "Surge in private equity deals causes some alarm," *Modern Healthcare*, June 16, 2018.



private equity, with similar provocative titles, contend that private equity is doing great damage to the US economy, with healthcare as a particularly egregious sector. In *These are the Plunderers: How Private Equity Runs—and Wrecks—America*, Gretchen Morgenson, an investigative journalist, and Joshua Rosner, a policy analyst, examine, as they put it in the introductory chapter, “the how, the why, and, most significantly, the whom in this calamity in order to educate, inform, and maybe even end the carnage.”<sup>88</sup> As they continue:

The debate focuses on the widening gulf between rich and poor in the United States, the pernicious effects our deepening income inequality has on the nation’s well-being, and how our style of capitalism has failed to provide a living wage and prosperous future for so many Americans.

What has not been fully explored—something we hope to remedy with this book—is the crucial role a very small cohort of elite financiers has played in this predation over the past thirty years. While globalization and technological innovations are recognized to have left many Americans behind, the activities of a core band of privateers and their use of excessive debt and dubious practices to undermine our nation’s economy have been largely overlooked. Even worse, these people have been lauded for their financial prowess.<sup>89</sup>

Morgenson and Rosner are correct. Progressives in the United States often call out “the billionaires” for rigging the political system in their favor while barely scratching the surface of how the ultrarich have acquired their wealth and the integral—and often intricate—relation the politics and economics of their predatory value extraction. The co-authors name names—Leon Black (Apollo Global Management), Steven Schwarzman (Blackstone), Henry Kravis (KKR), David Rubenstein (Carlyle Group)—observing that “the takeover of the nation’s economy by these financiers has been steady, piecemeal, and hard to spot.”

Because they operate in secrecy, with hidden ties to the companies they control, the wreckage they leave behind is often difficult to track back to its origins. It’s highly likely, in fact, that you buy products or services from these privateers each day without knowing it; their names, after all, rarely appear on the stores you patronize or on the bills you pay. One example: the surprise emergency hospital billing that incensed so many people was traced by researchers back to private equity.<sup>90</sup>

*These are the Plunderers* is not about the healthcare sector *per se*, but as suggested by the “surprise billing” example and the 89 mentions of “healthcare” throughout the text of the book, it seems evident that the private-equity invasion of healthcare services is the bridge too far that has led Morgenson and Rosner to sound the alarm.

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<sup>88</sup> Gretchen Morgenson and Joshua Rosner, *These Are the Plunders: How Private Equity Runs—and Wrecks—America*, Simon & Schuster, 2023, p. 5

<sup>89</sup> *Ibid.*, p. 11.

<sup>90</sup> *Ibid.*, p. 12.

But how do we fight back? In the penultimate paragraph of their book, Morgenson and Rosner note that, in the fall of 2022, anti-trust investigators at the US Department of Justice (DOJ) were looking into allegations that Apollo, Blackstone, and KKR had been placing directors on the boards of companies in the same sectors, thus creating the possibility that they could restrict competition at the expense of the quality and cost of services.<sup>91</sup> The book's concluding paragraph reads: "It only takes one or two cases to get the looters' attention. And so, we wait and hope."

In the face of PVE, however, more competition will not create higher-quality, lower cost products. The second book published in the spring of 2023, *Plunder: Private Equity's Plan to Pillage America*, by Brendan Ballou, a lawyer at the US Department of Justice, shows how powerful private-equity firms have structuring their business models to make use of the legal system to engage in predatory value extraction. Ballou delivers a powerful message that, if any legal obstacles stand in the way of looters' conquests, the private-equity guys will use their economic and political power to shield themselves from existing regulations or, better yet for them, get the rules changed.<sup>92</sup> Without a social movement against PVE and for what we would call "progressive value creation" (PVC), DOJ litigation that gets the looters' attention will likely result in compromises or, at most slaps on the wrist, that will enable private equity's still largely invisible hand to continue to stuff ill-gotten profits into their very ample pockets.<sup>93</sup>

The first paragraph of Ballou's book describes the private-equity onslaught as it affects almost every American's life, stressing, as do Morgenson and Rosner, that the enemy is unseen:

Private equity surrounds you. When you visit a doctor or pay a student loan, buy life insurance or rent an apartment, pump gas or fill a prescription, you may—wittingly or not—be supporting a private equity firm. These firms, with obscure names like Blackstone, Carlyle, and KKR, are actually some of the largest employers in America and hold assets that rival those of small countries. Yet few people understand what these firms are or how they work. This is unfortunate because private equity firms, which buy and sell so many businesses you know, explain innumerable modern economic mysteries. They explain, in part, why your doctor's bill is so expensive and why your veterinary clinic seems to be in decline. They explain why so many stores are understaffed or closing altogether. They explain why there are ever fewer companies in America and why those that remain are selling ever lower-quality products. In fact, despite their relative anonymity, private equity firms are poised to reshape America in this decade the way in which Big Tech did in the last decade and in which subprime lenders did in the decade before that. And as we will explore, they're doing it all with the government's help.<sup>94</sup>

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<sup>91</sup> Ibid., p. 324.

<sup>92</sup> Brendan Ballou, *Plunder: Private Equity's Plan to Pillage America*, Public Affairs, 2023.

<sup>93</sup> For an interview with Ballou about *Plunder*, see Lynn Parramore, "Private Equity is Out of Control and Looting America. This Prosecutor Says We Can Fix It," [Institute for New Economic Thinking](#), May 2, 2023.

<sup>94</sup> Ibid., p. 9.

As an introduction to his subject, Ballou's very first example details Carlyle's pillaging of HCR ManorCare, which had been the second-largest nursing-home chain in the United States. Ballou then kicks off the first section of the book by explaining in general terms how private equity turns money into more money. With private equity's business model in mind, he then details its devastating impacts on homeownership, retail, healthcare, insurance, retirement plans, and even prisons—a "profit center" in which private equity has devised ways to extract value from inmates, including the food they eat, the phone calls they make, and the healthcare they receive. In all cases, the source of private equity's profits is the low-quality, high-cost business model—that is, the antithesis of innovative enterprise.

Ballou's unique perspective on how private equity plunders is in the second section of the book, in which he analyzes how the pillagers get their way by making use of, and if necessary reshaping, the legal system. They sue their own customers in the nation's courts; privatize what were previously public services, especially those that had been provided by local government agencies; and use their money and power to influence members of Congress, on both sides of the aisle. This deep dive into how private equity plunders the economy sets up the third and final section of the book, in which Ballou delivers both a call to arms and an agenda for reform.

The call to arms is for "your voice matters" protests, which gains substance from Ballou's convincing arguments that the decline in the living standards of most Americans that the unseen enemy has normalized are bound to only get worse.<sup>95</sup> In the last chapter of the book, Ballou lays out a detailed reform agenda that, as he argues, "would rein in private equity's worst excesses."

They fall into three groups and are organized by the different institutions that can make them a reality. First are reforms that address wrongdoing in specific industries where private equity firms have been active: nursing homes, for instance, and prison services. Second are those that would limit private equity firms' ability to engage in specific abusive tactics, like dividend recapitalizations and excessive management fees. Finally are those recommendations that would reduce the systemic risks that the industry poses to the broader economy through, for instance, its investment in private credit.<sup>96</sup>

### ***MSV as an ideology for private-equity PVE***

One phrase that does not appear in Ballou's book is "shareholder value," the pervasive ideology that legitimizes predatory value extraction by both public equity and private equity.<sup>97</sup> Yet, as outlined in our discussion of public equity, MSV is the ideology that legitimizes PVE. As we have argued, MSV is an ideology of value extraction, posing as a valid theory of value creation that,

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<sup>95</sup> Ibid., p. 256.

<sup>96</sup> Ibid., p. 257.

<sup>97</sup> The phrase appears twice in Morgenson and Rosner, *These Are the Plunderers*, on pp. 64-65 and 170, but in both cases uncritically.

since the 1980s, has served to legitimize the looting of the business corporation, whether its shares are publicly or privately held.

Our own prior work, as outlined and referenced in the public-equity section of this essay, has focused on the role of MSV as an ideology of corporate governance creates incentives and exerts pressures on senior executives of publicly listed corporations to allocate corporate resources in ways that result in income inequity, employment instability, and productive fragility. The central role of MSV ideology in the rise and expansion of private equity can be found in a pioneering 2014 book, *Private Equity at Work: When Wall Street Manages Main Street*, by two academic scholars, Eileen Appelbaum and Rosemary Batt.<sup>98</sup> They note that “the private equity business model represents a test of the notion that pursuing shareholder value aggressively is a good thing by putting the shareholders even more in charge.” In their book, they ask: “What happens when decision-making is taken out of the hands of executives and investors take charge of business strategy and operations to a greater extent, as the proponents of the private equity business model propose?”<sup>99</sup> Their findings are that this shareholder-value driven business model decreases quality and increases cost as it suppresses the wage and benefits of the millions of workers in businesses that private equity controls.

Appelbaum and Batt recognize that there are some private-equity firms, especially those operating on a smaller scale, that can add value to the companies that they acquire by “building trust with stakeholders—suppliers, vendors, creditors, workers, and customers—as well as investing in worker skills, engaging frontline employees in problem-solving, and enabling employees to share in the success of the enterprise.” That is, these good private-equity firms reject the predatory practices associated with MSV. “However, “ they argue, “the evidence we have provided in this book, from SEC filings, bankruptcy records, original case studies, and a review of the research in finance economics, shows that all too often private equity owners have engaged in financial engineering—high leverage, the sale of assets, tax arbitrage, dividend recapitalizations, bankruptcy proceedings—to maximize their own returns while putting operating companies and their stakeholders in jeopardy.”<sup>100</sup>

Since the publication of *Private Equity at Work*, Appelbaum and Batt’s contribution has inspired a growing body of critical research—including the two recent “plunder” books reviewed above—into the characteristics of the private-equity business model and its implications for income distribution, employment opportunity, and productivity growth in the US economy. The past decade has also witnessed, as we have seen, a substantial increase in private-equity activity in the healthcare sector. Important research on private equity in healthcare has been conducted by Appelbaum and Batt in a series of papers, beginning in 2017; Richard M. Scheffler, Laura M. Alexander, and James R. Godwin in a 2021 report, “Soaring Private Equity Investment in the Healthcare Sector”, which probes private equity’s monopolistic practices; and Laura Katz Olson in her 2022 book, *Ethically Challenged*, which provides detailed studies of a number of healthcare

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<sup>98</sup> Eileen Appelbaum and Rosemary Batt, *Private Equity at Work: When Wall Street Manages Main Street*, Russell Sage Foundation, 2014.

<sup>99</sup> *Ibid.*, pp. 4-5.

<sup>100</sup> *Ibid.*, p. 265.

subsectors, including patient care by doctors, dentists, and homecare and hospices; the treatment of substance abuse, eating disorders, and autism spectrum disorders; and the provision of medical ambulance and emergency air transport.<sup>101</sup>

This scholarship has made very good use of data sources (particularly the Pitchbook database on private-equity deals), media articles, and various types of information on the operation and performance of healthcare units, some of it from government sources and some from the healthcare units themselves. The work of Appelbaum and Batt has played an important role in exposing the practice of “surprise billing” and securing legislation to mitigate it.<sup>102</sup> But given the rapid expansion of private equity in healthcare and its power to shape institutions and organizations in pursuit of PVE, there is a vast amount of critical research that remains to be done to push back on private equity’s attack on US healthcare.

One obstacle to carrying out this research is the fact that, in contrast to public equity, private equity is not required to issue public reports. Researchers cannot, therefore, access information on, as a key example, “dividend recapitalizations,” whereby the private-equity firm as shareholder, loads up its portfolio companies with debt for the purpose of paying the private-equity firm dividends. As a mode of PVE, dividend capitalizations are the analog of public equity’s stock buybacks. Just as the US government could effectively ban large-scale stock buybacks done as OMRs by having the SEC rescind Rule 10b-18, there are arguments that a dividend recapitalization could, under US law, be deemed a fraudulent conveyance. It is possible that prohibitions of the practice could be legislated at the state level.<sup>103</sup> Similarly legal constraints could be placed on unwarranted management fees and asset stripping.

<sup>101</sup> Eileen Appelbaum and Rosemary Batt, “Organizational Restructuring in U.S. Healthcare Systems: Implications for Jobs, Wages, and Inequality,” [Center for Economic and Policy Research](#), September 2017; Eileen Appelbaum and Rosemary Batt, “Private Equity Buyouts in Healthcare: Who Wins, Who Loses?” Institute for New Economic Thinking [Working Paper](#) #118, March 15, 2020; Richard M. Scheffler, Laura M. Alexander, and James R. Godwin, “Soaring Private Equity Investment in the Healthcare Sector,” Petris Center University of California Berkeley, May 18, 2021; Aimee La France, Rosemary Batt, and Eileen Appelbaum, “Hospital Ownership and Financial Stability: A Matched Case Comparison of a Nonprofit Health System and a Private-Equity Owned Health System,” in J. L. Hefner and I. M. Nembhard, eds., [The Contributions of Health Care Management to Grand Health Care Challenges](#) (*Advances in Health Care Management*, Vol. 20), Emerald Publishing, 2021: 173-220; Laura Katz Olson, *Ethically Challenged: Private Equity Storms Health Care*, Johns Hopkins University Press, 2022. See also the [Private Equity Stakeholder Project](#); e.g., Jim Baker, “Adverse Reaction: How Will the Flood of Private Equity Money into Health Care Providers Impact Access to, Cost and Quality of Care?” [Private Equity Stakeholder Project](#), November 13, 2019.

<sup>102</sup> Eileen Appelbaum and Rosemary Batt, “Private Equity and Surprise Medical Billing,” [Institute for New Economic Thinking](#), September 4, 2019; Rachel Bluth and Emmarie Huetteman, “Investors’ deep-pocket push to defend surprise medical bills,” [KHN](#), September 11, 2019; Eileen Appelbaum and Rosemary Batt, “Why It Is So hard to End Surprise Medical Bills,” [Center for Economic and Policy Research](#), February 2020; Loren Adler, Kathleen Hannick, and Sobin Lee, “High air ambulance charges concentrated in private equity-owned carriers,” [Brookings](#), October 13, 2020; U.S. Department of Health & Human Services, “HHS announces rule to protect consumers from surprise medical bills,” [HHS.gov](#), July 1, 2021; AFR, “Private Equity is the Driving Force Behind Surprise Medical Billing,” [Americans for Financial Reform](#), October 2021; Centers for Medicare & Medicaid Services, “Surprise billing & protecting consumers,” [CMS.gov](#), January 14, 2022; Yves Smith, “Eileen Appelbaum and Rosemary Batt score important win against private equity as surprise billing laws slam KKR grifter Envision Healthcare,” [naked capitalism](#), March 16, 2022.

<sup>103</sup> See Price A. Sloan, “Leveraged Buyouts and Fraudulent Conveyance: Lenders and Shareholders Beware,” *Missouri Law Review*, 53, 4, 1988: 761-777; Raymond J. Blackwood, “Applying Fraudulent Conveyance Law to Leveraged Buyouts,” *Duke Law Journal*, 42, 1992: 340-381; Michael Boykins, “A Closer Look at Leveraged Dividend Recapitalizations,” [National Law Review](#), July 16, 2013; Sophia Agathis, “Private Equity’s Overleveraging of Portfolio Companies,” *Fordham Journal of Corporate and Financial Law*, 21, 4, 2016: 607-638;

Lack of disclosure means, however, that there are no available databases on dividend recapitalizations to measure the aggregate scale of this form of PVE or the role that they play in specific organizational contexts in subverting stable and equitable growth. Indeed, in their more recent papers on private equity in healthcare, Appelbaum and Batt emphasize information asymmetry and lack of transparency as the barriers to regulating private equity for the sake of desirable (i.e., high-quality, low-cost) outcomes.<sup>104</sup> Because private-equity firms are not subject to the financial reporting requirements of publicly listed companies, Appelbaum and Batt argue that the private-equity model “contrasts sharply with how publicly traded companies operate.” They continue:

Shareholders in publicly traded companies expect them to be going concerns that create shareholder value for the foreseeable future. CEOs of these companies are hired by independent boards and typically have a substantial history of related management experience and success. None of the actions just described are available to a publicly traded company. Public shareholders would flee a company that loaded itself with debt equal to 70 percent of its enterprise value—or one that issued junk bonds to pay dividends.<sup>105</sup>

It should be evident from our research on public equity that, even with far more disclosure of the mode of PVE, public shareholders, among which are pension funds, mutual funds, endowments, and asset managers such as BlackRock, Vanguard, and State Street, do not avoid allocating portions of their portfolios to companies that spend 100 percent or more of their profits on buybacks, even when these buybacks are in addition to dividends and even when they are funded by debt.<sup>106</sup> Since most buybacks are done when companies are highly profitable, most public shareholders, both retail and institutional, who are not in the business of churning their stock portfolios view the increase in stock price as a sign that the stock is performing well, with little if any understanding of the longer-run problems that a company might experience when the stock-price increase is because of manipulative boosts through large-scale buybacks. Even when, as has often been the case,<sup>107</sup> companies take on debt to do buybacks, institutional shareholders, who Lazonick and Shin label the value-extracting enablers, typically go along for the stock-appreciation ride. Indeed, it is corporate executives as value-extracting insiders and hedge-fund managers as value-extracting outsiders who “flee” the company as they sell their shares to realize gains.<sup>108</sup> It should also be noted that some of the most successful private-equity firms, including Apollo, Blackstone, Carlyle, KKR, and TPG, are themselves now publicly listed, mainly because

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<sup>104</sup> Appelbaum and Batt, “Private Equity Buyouts in Healthcare,” pp. 7-8.

<sup>105</sup> Ibid. In *Ethically Challenged* (pp. 8-9), Olson appears to take a similar position, stressing that “[s]ecrecy is a hallmark of the private equity industry, and it rigidly sticks to its code of silence with pride” and that “[a]t least, publicly traded entities must file with the Securities and Exchange Commission (SEC) and disclose the information they provide, which is available for anyone to inspect.” Scheffler et al., “Soaring Private Equity Investment in the Healthcare Sector” (p. 2), emphasize that “[p]rivate equity firms operate under the public and regulatory radar.”

<sup>106</sup> Lazonick, et al., “Why Stock Buybacks Are Dangerous for the Economy.”

<sup>107</sup> Ibid.

<sup>108</sup> Lazonick and Shin, *Predatory Value Extraction*.

their founders wanted to monetize their accumulated stakes in the firms and use the firms' listed shares as currency (in addition to cash) for acquisition deals and employee compensation.

In other words, while greater transparency would certainly help critical research and reformers make the case against private equity, it would not in and of itself solve the problem of predatory value extraction.<sup>109</sup> The critical research that has been done, including that of Appelbaum and Batt, has put a spotlight on the dividend recapitalization as a mode of PVE. Just as AIRnet's research on stock buybacks done as open-market repurchases has led to a call for a ban on OMRs because of their value-destroying impacts,<sup>110</sup> critical research on private equity should call for a ban on dividend capitalizations. Indeed, from our experience, the adoption of that more fundamental position on banning dividend recapitalizations will force the government to demand more transparency from private equity on this key question.

### ***Toward a research agenda on private equity in healthcare services***

The theory of innovative enterprise (TIE) that we have constructed, with our focus on publicly listed corporations, for analyzing the relation between value creation and value extraction is applicable to analyzing whether private equity promotes or subverts the quality-cost performance of organizations engaged in the delivery of healthcare goods and services. TIE focuses on three "social conditions of innovative enterprise": strategic control, organizational integration, and financial commitment.<sup>111</sup> The generation of higher-quality, lower-cost products requires that executives who control corporate resource allocation have the abilities and incentives to make strategic investments in innovative capabilities. Implementation of an innovation strategy requires integration of people working in a complex division of labor into collective and cumulative learning processes. For collective learning to cumulate over time, the sustained commitment of finance must keep the learning organization intact.

In applying TIE to analyzing private equity in healthcare, we ask: What value does private equity add to the strategy, organization, and finance of the healthcare activities in which it is involved compared with the "business model" for carrying out the same activities that prevailed—or that could be put in place—in the absence of private equity? When private equity takes strategic control of, for example, a hospital, it can make strategic decisions concerning the types of services that the hospital delivers and the prices at which they are offered. It can structure the ways in which personnel with various capabilities and responsibilities are integrated into the organizational processes that deliver those services. It can provide financial resources that are committed to fund those processes continuously over time to deliver healthcare services.

Does private equity's involvement improve the quality and/or reduce the cost of the delivery of healthcare services by virtue of superior strategic decisions, more effective organizational processes, and/or more secure and less expensive financial resources? It would take highly

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<sup>109</sup> See William Lazonick, "Clinton's proposals on stock buybacks don't go far enough," [Harvard Business Review](#), August 11, 2015; Lazonick and Jacobson, "Letter to SEC."

<sup>110</sup> Lazonick, "Investing in Innovation."

<sup>111</sup> Lazonick, "The Theory of Innovative Enterprise."

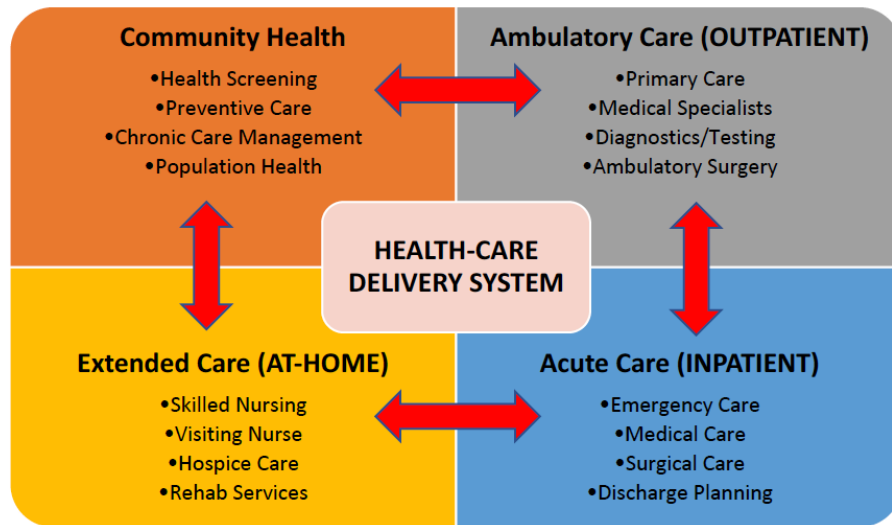
specialized private-equity capabilities to intervene in a healthcare operating unit in ways that improve strategic control and organizational integration. In general, the primary claim of private-equity firms involved in the healthcare industry is that they contribute to value creation by providing financial commitment. It is plausible that an innovative “business model” could entail private-equity provision of financial commitment with seasoned hospital administrators exercising strategic control and an experienced workforce engaging in organizational integration. Even then, private equity could use its power as the provider of financial commitment to an operating unit to extract more value than it contributes to value creation, which could in turn undermine the value-creating contributions of strategic control and organizational integration.

In a hospital, private equity might, alternatively, use its position of strategic control to eliminate low-margin services while maintaining services that are more prone to price gouging. It might change the staffing and pay structures of the hospital in ways that undermine the collective capability of the hospital teams to deliver high-quality, cost-effective services at a point in time and engage in learning processes that could improve quality and reduce cost over time. Through a dividend recapitalization, private equity may burden the hospital with debt to pay a large dividend to itself. It might spin off the hospital’s real estate as a separate company that can then charge the hospital an extortionate rent for occupying the very same land and buildings.

Figure 6, above, drawn from PitchBook’s categorization, merely lists functional activities in healthcare services. An understanding of the expansion of private equity in healthcare services requires a mapping of the relation of the different types of services to one another as constituent elements of a delivery system so that researchers can gain analyze the implications of the spread of private equity across activities and its growth within them for the operation and performance system as a whole. Figure 7 represents our attempt to map the constituent activities and their interactions in the healthcare-services system. The next step in a research agenda would be to gain overviews of the role of private equity in the system’s various activities as a prelude to making strategic decisions that prioritize activities on which research efforts should focus.

While far from definitive, our initial survey of the healthcare-services landscape has suggested three areas that, given the expansion of private equity in them and the potential for harm done by them, would have high priority for research: a) hospitals in low-income areas, b) specialty healthcare clinics, and c) healthcare staffing services.



**Figure 7: A schematic view of the types of activities that constitute a healthcare delivery system**

a) Hospitals in low-income areas

Hospitals are the core of the healthcare delivery system, providing both acute (inpatient) and ambulatory (outpatient) care. Occupying the right side of the system outlined in Figure 7, hospitals provide the foundation for the delivery of auxiliary healthcare services via the community and at-home care venues, depicted on the left side. Over time, many physicians' offices have become integrated into the hospital system. As in the case of specialty clinics (discussed below), some of the services that can be delivered in the integrated hospital setting may be outsourced to units that are controlled outside the hospital setting, while other types of services may be maintained in-house. Some physicians operate offices in both settings.<sup>112</sup>

As an establishment, a hospital may be a distinct unit of strategic control or, far more typically, it is part of a hospital group, with strategic control residing in a corporate office. Applying the theory of innovative enterprise to the hospital, our project will examine the patterns of decision-making concerning the allocation of hospital resources that determine a) the types of services that the hospital provides, and b) the employment and supply-chain processes through which these services are provided that determine their quality and cost. We will compare the strategy, structure, and performance of hospitals as non-profits and for-profits, and among the latter, those hospitals in which private-equity firms exercise strategic control.

In an illuminating study, La France, Batt, and Appelbaum compare the implications for financial stability of the non-profit Montefiore Health System in New York with the Steward Health Care System (formerly Caritas) in Massachusetts, which was owned by the PE firm Cerberus from 2010

<sup>112</sup> For a deeply insightful study of the financial pressures on the operation of a hospital in a low-income area, even in the absence of private-equity control, see Brian Alexander, *The Hospital: Death and Dollars in a Small America Town*, St. Martin's Press, 2021.

to 2020.<sup>113</sup> Both hospital systems served low-income areas. Originating as a Catholic non-profit organization, in 2010 Caritas was the second-largest hospital group in New England, with 1,152 beds and 12,000 employees serving 55 communities. The organization had been mired in debt and burdened by underfunded pensions when, in 2008, Ralph de la Torre, a surgeon who had built the Cardiovascular Institute at Boston's Beth Israel Hospital, took over as Caritas CEO. He then arranged the sale of Caritas to Cerberus, which renamed it Steward Health Care, with de la Torre remaining as CEO.<sup>114</sup> At that point, in the wake of community protests, the Massachusetts Attorney General (AG) imposed certain financial conditions on the transfer to the private-equity firm to mitigate profiteering, including strictures on hospital closings.

In 2016, in a sale-leaseback deal worth \$1.25 billion, Steward transferred ownership of the real estate of a number of its hospitals to Medical Properties Trust (MPT). Henceforth, the hospitals would have to pay rent to MPT. According to La France et al., Cerberus used the proceeds of this deal to pay dividends to itself and other shareholders.<sup>115</sup> Subsequently, MPT purchased more Steward properties (by 2023, Steward would account for 20 percent of MPT's revenues).<sup>116</sup> In 2018, Steward moved its corporate headquarters from Massachusetts to Texas, and in 2019, it had become the largest private hospital network in the country (7,900 beds and 42,000 employees serving 800 communities). In 2020, Cerberus sold Steward to a physicians' group led by de la Torre, who continues as CEO.

This study by La France et al. exemplifies the type of corporate-level research that must be carried out *to begin* to assess the implications of private-equity involvement in healthcare services quality and cost. La France et al. find that "the Steward system is the worst performing system financially of any in the state of Massachusetts – the only state where comparative data are currently available."<sup>117</sup> They also find that over time Steward showed a decline in quality benchmarks, while Montefiore experienced an improvement, and that Steward's "fall in performance coincides with the period when Steward was beginning its debt-financed acquisitions and soon thereafter was freed from the Massachusetts AGs monitoring."<sup>118</sup>

Since La France et al. published their study in 2021, Steward's finances have deteriorated. With its private-equity status, Steward does not publish financial statements, but it has blamed low rates for services to Medicaid patients for its revenue shortfalls.<sup>119</sup> In December 2023, Steward announced that, as of April 2024, it would be closing one of its nine hospitals in Massachusetts.

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<sup>113</sup> La France et al., "Hospital Ownership and Financial Stability." See also *Health Affairs*, 40, 5, 2021. See also Anaese C. Offodile II, Marcelo Cerullo, Mohini Bindal, Jose Alejandro Rauh-Hain, and Vivian Ho, "Private Equity Investments in Health Care: An Overview of Hospital And Health System Leveraged Buyouts, 2003–17," *Health Affairs*, 40, 5, 2021.

<sup>114</sup> See Neil Swidey, "The health care doctor," *Boston Globe Magazine*, February 6, 2011.

<sup>115</sup> La France et al., "Hospital Ownership and Financial Stability," p. 196.

<sup>116</sup> Larry Edelman, "How a private equity firm made a killing on Steward Health Care," *Boston Globe*, January 22, 2024.

<sup>117</sup> La France et al., "Hospital Ownership and Financial Stability," p. 213.

<sup>118</sup> *Ibid.*, p. 212. See also John Hechinger and Sabrina Willmer, "Life and debt at a private equity hospital," *Bloomberg BusinessWeek*, August 6, 2020 for a discussion of the impact of Cerberus on the quality and cost of healthcare at Steward-owned St. Elizabeth's Hospital in Boston MA.

<sup>119</sup> Jessica Bartlett, "Mass. lawmakers seek Steward data," *Boston Globe*, February 16, 2024. See also Paula A. Hattis and John E. McDonough, "Some thoughts on how to deal with the Steward situation," *Commonwealth Beacon*, January 23, 2024;

The state's entire Congressional delegation (all Democrats) sent a letter to CEO de la Torre, warning that "[t]he abrupt closure of Steward's Massachusetts hospitals would significantly limit access to inpatient critical care and inpatient behavioral health care, as well as maternal and newborn health services in eastern Massachusetts," and that "Steward hospital closures would be borne primarily by the Massachusetts residents who already experience the greatest challenges accessing health care."<sup>120</sup> On January 29, Sen. Warren stated: "It's clear that Steward executives put profits over patients and went to great lengths to hide critical information about its financial status from state officials, jeopardizing quality health care for the people of Massachusetts."<sup>121</sup>

In a letter to Cerberus on February 15, the Massachusetts Congressional delegation summarized the predatory practices in which the private-equity firm had engaged when it had owned and sold Steward, declaring: "We have long been concerned about the nefarious role of private equity in our economy....The dire threat of Steward's collapse appears to be a textbook example of the grave risks posed by a private equity takeover of the health care system." The letter then posed 14 specific questions, demanding details of Cerberus's predatory value extraction from Steward.<sup>122</sup>

On February 26, Cerberus responded that during the period of its ownership of Steward, its hospitals provided high-quality healthcare, while, through its efficient management, Cerberus generated yields on the savings of, "among others, millions of teachers, firefighters, police, municipal workers, universities, and endowments" who had invested funds with Cerberus as institutional shareholders. The private-equity firm claimed that it left Steward in good financial health when it sold its stake in June 2020, and went on to respond to the 14 questions with a minimum of information.<sup>123</sup>

The reaction of Senators Warren and Markey to the Cerberus's whitewash was scathing:

Cerberus's response confirms the key points of this whole dirty saga: Cerberus looted Steward, failed to invest in Massachusetts facilities, and it appears that the company walked away with a profit of at least \$800 million leaving Steward with

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John E. McDonough and Paula A Hattis, "The state's options with Steward on the brink," [Commonwealth Beacon](#), February 20, 2024.

<sup>120</sup> Senators Elizabeth Warren and Edward P. Markey and Representatives Richard E. Neal, James P. McGovern, Stephen F. Lynch, William R. Keating, Katherine Clark, Seth Moulton, Lori Trahan, Ayanna Pressley, and Jake Auchincloss, "[Letter](#) to Dr. Ralph de la Torre, Chairman and Chief Executive Officer, Steward Health Care System," January 23, 2024.

<sup>121</sup> Sen. Elizabeth Warren, "Statement on Steward Health Care," [Warren press release](#), January 29, 2024.

<sup>122</sup> Senators Elizabeth Warren and Edward P. Markey and Representatives Richard E. Neal, Katherine Clark, Ayanna Pressley, Lori Trahan, Jake Auchincloss, Seth Moulton, William R. Keating, James P. McGovern, and Stephen F. Lynch, "[Letter](#) to Mr. Stephen A. Feinberg, Co-Founder, Co-Chief Executive Officer, and Chief Investment Officer, Cerberus Capital Management, L.P.," February 15, 2024.

<sup>123</sup> Cerberus Capital Management L.P., "[Memo](#) to Senators Elizabeth Warren and Edward Markey and Representatives Ayanna Pressley, Jake Auchincloss, Katherine Clark, Seth Moulton, William Keating, Stephen Lynch, James McGovern, Lori Trahan, and Richard Neal, Re: Steward Healthcare," February 26, 2024.

massive, ongoing lease payments to Medical Properties Trust that are a major source of the hospitals' financial distress.

However, Cerberus's answers still don't provide a clear answer for how much Cerberus made off of the people of Massachusetts. The information provided to Congress shows that the company may have made more.

We do clearly know this: Cerberus worked hand-in-glove with Dr. Ralph de la Torre and Steward executives to create complicated financial schemes that put health providers in impossible positions and actively undermined the public's access to high quality health care. We need clear answers from the company to find out who at Cerberus received these huge profits – and claw them back from the private equity executives responsible for this mess.”

The in-depth and ongoing company-level research on private equity in healthcare that we propose would provide government policy makers and other interested parties with much clearer answers to the nature and influence of a company like Cerberus on the healthcare system before a crisis unfolds. Indeed, the findings could inform government policies at the federal, state, and local levels that could mitigate and possibly avert the damage that private equity does.

#### b) Specialty healthcare clinics

In recent years, private equity has been making its presence felt in organizations that run chains of specialty clinics for a range of healthcare services.<sup>124</sup> Since most states prohibit private-equity firms from actually owning these practices, the governance structure generally links a private-equity-owned management company with a physician-owned medical group.<sup>125</sup> Among the specialties in which the involvement of private equity has been expanding rapidly are behavioral services,<sup>126</sup> dentistry,<sup>127</sup> dermatology,<sup>128</sup> dialysis,<sup>129</sup> emergency medicine,<sup>130</sup>

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<sup>124</sup> Jane M. Zhu, Lynn M Hua, and Daniel Polsky, “Private Equity Acquisitions of Physician Medical Groups Across Specialties 2013-2016,” *JAMA*, 323, 7, 2020: 663-665; Joanne Finnegan, “Private equity firms are acquiring more physician practices. Which specialties are in highest demand?” *Fierce Healthcare*, February 18, 2020.

<sup>125</sup> Jane M. Zhu, “Private Equity Investment in Physician Practices,” *Leonard Davis Institute of Health Economics*, University of Pennsylvania, February 15, 2020.

<sup>126</sup> Michelle Conlin, “Private equity's latest play: the troubled kids industry,” *Reuters*, February 17, 2022.

<sup>127</sup> Neil Luria and Gregory Hagood “Industry voices—private equity may be repeating mistakes with physician practice management companies,” *Fierce Healthcare*, December 10, 2019.

<sup>128</sup> Robert Tyler Braun, Amelia M. Bond, Yuting Qian, Manyao Zhang, and Lawrence P. Casalino, “Private Equity in Dermatology: Effect on Price, Utilization, and Spending,” *Health Affairs*, 40, 5, 2021.

<sup>129</sup> Laura Cooper, “Investors inject over \$325 million in kidney-care provider somatus,” *Wall Street Journal*, February 22, 2022.

<sup>130</sup> Kara Grant, “Is private equity a dangerous employer?” *MedPage Today*, October 14, 2021.

gastroenterology,<sup>131</sup> gynecology,<sup>132</sup> lab services,<sup>133</sup> oncology,<sup>134</sup> ophthalmology,<sup>135</sup> orthopaedics,<sup>136</sup> and radiology.<sup>137</sup> While the spread of private equity in these various fields has been documented, there has been little, if any, systematic research on either the implications for the quality and cost of the health care services in question or state-specific regulation to achieve superior outcomes. At an early stage of our project, we will identify for close study at least two specialty areas of private equity involvement in Massachusetts. In each case, we will compare the quality/cost performance of these clinics with the delivery of the services from a hospital setting, with and without private equity involvement.

### c) Healthcare staffing services

A major change has been taking place in the sourcing of healthcare labor to hospitals and nursing homes and other facilities, with specialized staffing companies supplying physicians, nurses, and other personnel to supplement, and possibly displace, in-house employees (recruiting, for example, “strike nurses” for healthcare providers affected by labor disputes). In 2017, Blackstone completed its \$6.1-billion acquisition of Team Health, which was supplying 20,000 personnel to 3,300 facilities nationwide.<sup>138</sup> In the same year, TPG took a major stake in Medical Solutions, which was supplying healthcare personnel to over 1,600 hospitals across the United States.<sup>139</sup> In 2018, KKR did a \$9.1-billion deal to acquire Envision,<sup>140</sup> which had generated \$15.3 billion in annual revenues in 2017, delivering “physician services, primarily in the areas of emergency department and hospitalist services, anesthesiology services, radiology/teleradiology services, and children’s services to more than 1,800 clinical departments in healthcare facilities in 45 states and the District of Columbia.”<sup>141</sup>

In the November 2018 elections, Massachusetts had the Nurse-Patient Assignment Limits Initiative as a referendum on the ballot, as unionized registered nurses sought to have the electorate ratify legislated staffing ratios in hospitals.<sup>142</sup> The healthcare staffing sector was a

<sup>131</sup> Emily Pisacreta and Emmarie Huetteman, “Betting on ‘golden age’ of colonoscopies, private equity invests in gastro docs,” [KHN](#), May 27, 2022.

<sup>132</sup> Alexandra Borsa, Joseph Bruch, and Sarah S. Richardson, “When private equity firms invest in women’s health clinics, who benefits?” [STAT](#), November 14, 2020.

<sup>133</sup> Amber Walsh, Paul Kiehl, and Bart Walker, “Lab services market remains ripe for private equity,” [Law360](#), May 4, 2017.

<sup>134</sup> Michael Miner and Vincent M. Kickirillo, “Oncology on the rise: Private equity investment in cancer care,” [VMG Health](#), August 13, 2019.

<sup>135</sup> Eloise May O’Donnell, Gary Joseph Lelli, Sami Bhidya, and Lawrence P. Casalino, “The Growth of Private Equity Investment in Health Care: Perspectives from Ophthalmology,” [Health Affairs](#), 39, 6, 2020.

<sup>136</sup> Louis McIntyre, “Consolidation: The role of private equity in orthopaedics,” [AAOS Now](#), March 24, 2021.

<sup>137</sup> Daniel A. Ortiz, Lawrence R. Muroff, and Arvind Vijayasarathi, “Early-Career Radiologists’ Perceptions of National Corporations in Radiology,” [Journal of the American College of Radiology](#), 17, 3, 2020: 349-354.

<sup>138</sup> Team Health Holdings, “TeamHealth completes previously announced transaction with Blackstone, CDPQ, PSP investments and NPS and becomes a private company.” [Cision PR Newswire](#), February 6, 2017; Randall Pierson and Natalie Grover, “Blackstone to buy TeamHealth for \$6.1 billion,” [Reuters](#), October 31, 2016.

<sup>139</sup> TPG, “TPG Growth to acquire leading provider of travel nurse staffing solutions,” [TPG press release](#), May 8, 2017.

<sup>140</sup> Joe Stinnett, “Completion of \$9.9B deal leaves Nashville with one fewer public health care company,” [Nashville Business Journal](#), October 11, 2018.

<sup>141</sup> KKR, “KKR competes acquisition of Envision Healthcare Corporation,” [BusinessWire](#), October 11, 2018.

<sup>142</sup> “Massachusetts Question 1, Nurse-Patient Assignment Limit Initiative,” [Ballotpedia](#).

potential beneficiary of a Yes vote because limits on nurse-patient ratios would increase demand for external staffing.<sup>143</sup> In the event, with the hospitals mounting a massive media campaign, the Initiative went down to defeat, with No votes at over 70 percent.

The number of “travel nurses” increased sharply during the Covid-19 pandemic, with registered travel nurses being paid hourly rates that were two to four times those paid to their counterparts employed directly by hospitals. In recent months, the demand for travel nurses has plunged to the levels that existed prior to the pandemic.<sup>144</sup> Our project will focus on investigating the impact of travel-nurse staffing on the quality and cost of healthcare delivery across different types of ownership models and during periods of soaring and sagging demand. A key issue for our proposed research is the quality of health care delivered by in-house and outsourced personnel, given the need for what the theory of innovative enterprise calls “collective and cumulative learning” by stable teams of employees in generating high levels of productivity.

### ***Suppressing predatory value extraction, elevating progressive value creation***

To sum up, our research agenda explores the roles of both public equity and private equity in determining the relation between value creation and value extraction in the US business corporation. To carry out this microeconomic analysis, we employ the social conditions of innovative enterprise (SCIE) framework, which permits us to document the interactions among institutions (governance, employment, investment), enterprises (strategy, organization, finance), and industries (markets, technology, competition) in the operation and performance of the economy. Our previous work, including some on the healthcare industry reviewed in this paper, has demonstrated the power of the SCIE framework for both cross-national comparisons of industry dynamics and historical investigations of industrial transformation processes brought to the present as “history” unfolds.

By focusing on the determinants of the relation between value creation and value extraction as an evolving process, the SCIE analysis permits us to gain unique insights into the microeconomic foundations of macroeconomic outcomes, including productivity growth, income distribution, and employment opportunity. Our fundamental hypothesis is that, in the United States in the third decade of the 21<sup>st</sup> century, both public equity and private equity have become, on net, predatory value extractors, with deleterious implications for productivity growth, income distribution, and employment opportunity in the US economy. Our analysis of the processes of predatory value extraction contribute to an understanding of identifiable phenomena such as extreme income inequality, employment instability, downward socioeconomic mobility, environmental precarity, and US loss of global competitiveness in critical technologies.<sup>145</sup>

The healthcare industry is just one part of the US economy, but, by definition, one that is of utmost importance to our health as well as our wealth. In an era of exploding government deficits

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<sup>143</sup> See e.g., “Mass. nurses argue pros, cons of mandated ratios in ads for ballot initiative,” *HCT Today*, September 1, 2018.

<sup>144</sup> Hannah Norman, “Travel nurses see swift change of fortunes as covid money runs dry,” *KHN*, May 10, 2022.

<sup>145</sup> For much of the work of the Academic-Industry Research Network on these issues, see the [website](#) of the Institute for New Economic Thinking.

and divisive tax politics, the US healthcare industry absorbs an inordinately large portion of gross domestic income, while delivering low-quality goods and services to an inordinately large portion of the population. Yet, as we have stressed in this paper, the United States surpasses every economy in the world in its possession of innovative capabilities for the delivery of high-quality, low-cost healthcare goods and services to masses of people—an outcome that can be achieved through business models that support “progressive value creation” in the healthcare sector. Currently, however, as we have argued in this paper, the prevailing business models in the healthcare sector support predatory value extraction. The purpose of our healthcare research agenda is to identify the key levers of government policy, business strategy, and civil-society intervention for suppressing predation and elevating progression.

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## ABOUT

The Academic-Industry Research Network – theAIRnet – is a private, 501(c)(3) not-for-profit research organization devoted to the proposition that a sound understanding of the dynamics of industrial development requires collaboration between academic scholars and industry experts. We engage in up-to-date, in-depth, and incisive research and commentary on issues related to industrial innovation and economic development. Our goal is to understand the ways in which, through innovation, businesses and governments can contribute to equitable and stable economic growth – or what we call “sustainable prosperity”.

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