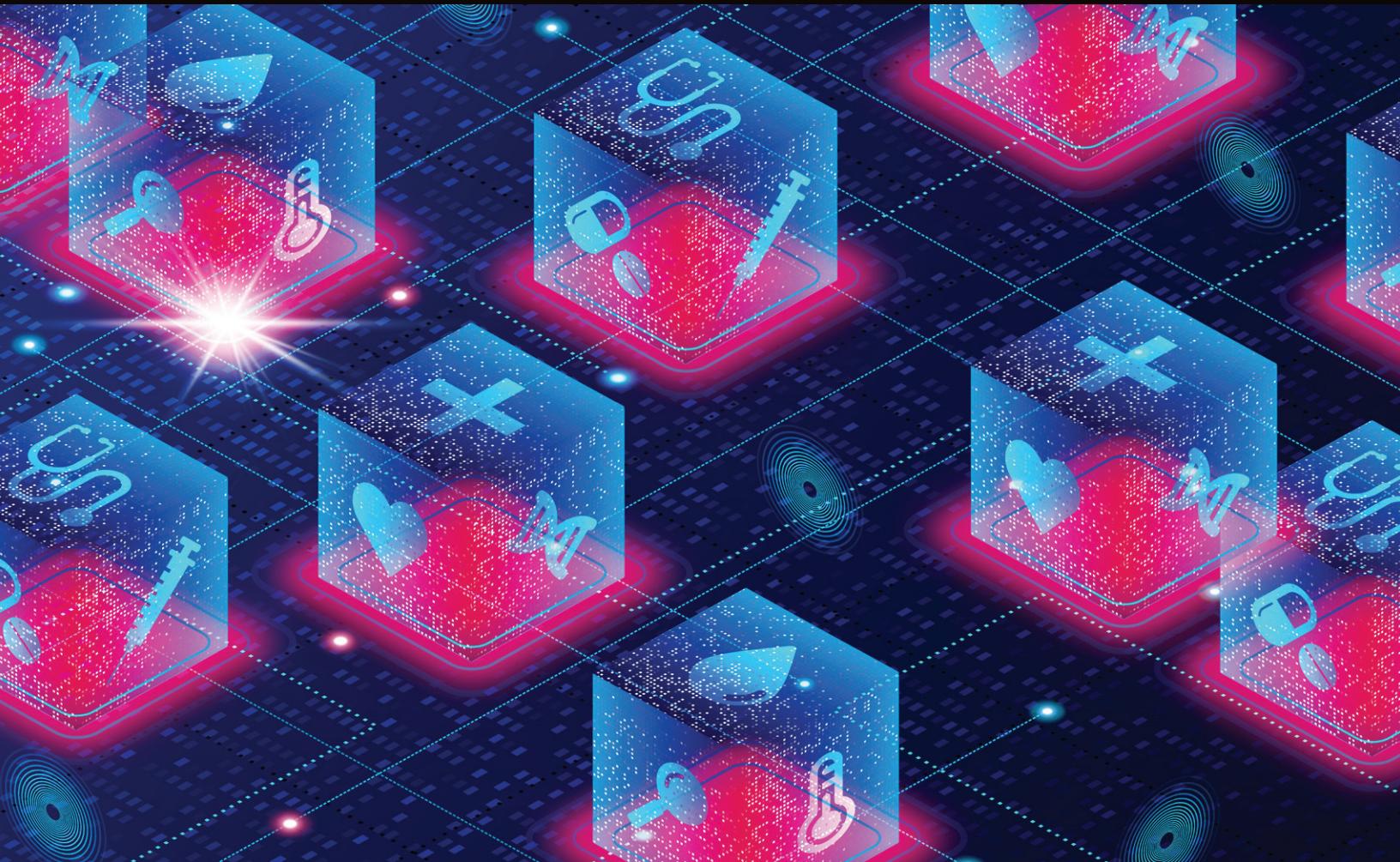

ISSUE BRIEF

Imbalance of Financial Risks and Economic Rewards in the U.S. Healthcare Supply Chain

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Key Takeaways

Price controls are wrongly viewed as the remedy for problems created by the overly complex and opaque drug reimbursement and payment system (payment system). This inefficient payment system misaligns incentives to the detriment of patients.

The arguments in favor of drug price controls rely on the misconception that innovative drug manufacturers are earning excessive returns – they are price gouging. A review of the financial returns of innovative drug manufacturers that account for the risks and exceptionally high capital costs demonstrates that these allegations are ill-founded.

This analysis examines the financial data for more than 1,200 publicly-traded U.S.-based companies across five healthcare industries and the overall U.S. average. Profits are measured based on the industry return on capital and economic value added (EVA), which “evaluates a company’s ability to generate financial returns above its cost of capital, indicating true economic profit.”¹ The evaluation also compares each industry’s cost of capital and investment into research and development (R&D) efforts, as more R&D intensive industries are also generally viewed as higher risk. The table below summarizes the results.

	RETURN ON CAPITAL	COST OF CAPITAL	ECONOMIC VALUE ADDED (EVA)	R&D/SALES
Healthcare Support Services (including PBMs, Health Insurers, & wholesalers)	41.40%	8.20%	33.1%	0.1%
Hospitals & Healthcare Facilities	20.60%	6.80%	13.8%	0.0%
All U.S. Industries (excl. financials)	15.20%	8.80%	6.3%	3.8%
Healthcare Products	14.60%	8.90%	5.6%	8.3%
Healthcare IT	15.40%	9.90%	5.5%	6.6%
Biopharmaceutical Manufacturers	10.30%	9.20%	1.1%	33.2%

The relatively low return on capital and EVA for innovative drug manufacturing demonstrates that biopharmaceutical manufacturers generate much smaller financial returns above its cost of capital compared to the average U.S. industry as well as other healthcare industries – especially compared to the 41.4 percent return on capital and 33.1 percent EVA earned by healthcare support services companies such as PBMs and health insurers.

These data indicate that healthcare support services industry that includes insurers and PBMs earns economic profits that are nearly 30 times higher than biopharmaceutical manufacturers when adjusting for differences in capital investment. This is not surprising.

The business model for support services is built on administrative functions like claims processing and formulary management that, compared to the risky and capital-intensive process for developing innovative medicines, require significantly little capital, no scientific risk, and benefit from vertically integrated models that ensure steady, predictable cash flows. In contrast, biopharmaceutical manufacturers take on enormous scientific and financial risk—investing billions in research, laboratories, clinical trials, manufacturing capacity, and regulatory compliance — with most projects failing along the way.

This review of profitability, adjusted for risks and capital costs, demonstrates that biopharmaceutical manufacturers are not price gouging and the argument in favor of price controls consequently fails by its own logic. Rather than supporting destructive price controls, reforms should directly address the flawed drug pricing system to promote greater drug affordability.

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Introduction

Improving drug affordability remains a top concern for voters. In response to these concerns, too many policymakers are succumbing to the false allure of drug price controls. In fact, both Presidents Biden and Trump have advocated for some form of drug price controls. They may dispute this characterization, claiming instead that they only support authorizing the government to *negotiate* drug prices or support a *fair* price for drugs. Such characterizations are simply spin, however.

Take President Trump's push for "Most Favored Nation" (MFN) pricing. This policy threatens to impose the government-controlled prices from other industrialized countries (e.g., most favored nation pricing) in the U.S. market. In doing so the policy is a complicated process for forcing price controls on to the U.S. market.

Preceding President Trump's MFN policy, President Biden signed the Inflation Reduction Act (IRA) in August 2022. This Act established a formal process for the Centers for Medicare & Medicaid Services (CMS) to set prices on select drugs in Medicare. The resulting prices, called Maximum Fair Prices (MFP), are supposedly arrived at through a compromise with manufacturers but come with a massive penalty if not accepted by the manufacturer. These price controls currently cover Part D drugs, which are medicines patients take at home and are now effective on the first 10 drugs, which began January 1, 2026. Starting in the 2028 cycle, the price controls will also apply to Part B drugs, which are medicines patients receive from a health care provider.

“ Too many policymakers are succumbing to the false allure of drug price controls.

Price controls on small-molecule drugs – chemically synthesized medicines that typically come in pill form and are taken orally – become effective nine years after approval and are typically covered by Part D. By contrast, biologic drugs, which are typically derived from living organisms and often covered under Part B, receive a 13-year reprieve. This discrepancy strongly discourages the development of small-molecule drugs, creating what some critics have aptly dubbed the "pill penalty."

Calling the MFP price-setting procedures a negotiation doesn't make it so. The government has the authority to impose draconian penalties on companies that do not comply with the process, including an excise tax up to 95 percent of the drug's entire U.S. sales. The prospect of such an excessive financial penalty dramatically skews the negotiation in the government's favor, making a fair negotiation simply impossible. As a result, the government is, for all practical purposes, imposing price controls on these selected drugs. Since its implementation, both President Biden and President Trump have overseen one round of this price setting process.

These policies create many adverse consequences, including the loss of many promising therapies that will never reach patients. University of Chicago economist Tomas Philipson estimates that this distorted incentive structure will result in 188 fewer small-molecule treatments over the next 20 years.² The Life Sciences Investment Tracker from the Incubate Coalition, which represents life sciences investors, shows that since the passage of the IRA, 55 research programs and 26 drugs have been discontinued.³

Ultimately, the loss of innovative treatments threatens to increase overall healthcare spending, exacerbate shortages, and raise quality concerns. These problems alone illustrate that patients will pay a high cost from the imposition of drug price controls.

Drug Price Controls Fail by Their Own Logic

Ignoring these fatal flaws for a moment, the arguments in favor of drug price controls fail by their own logic. The main justification for these regulations is that price controls are appropriate when companies are using excessive market power to inflate prices. Advocates for minimum wage increases argue that employers for low wage workers exert their market power to underpay low-skilled workers. Similarly, advocates for rent control assert that there is a power balance between landlords and tenants that enables property owners to overcharge tenants.

Applied to innovative drugs, price control advocates allege that the regulation is necessary because innovative companies are using their market power to overcharge patients. Put more simply, the companies are price gouging. These assertions are all incorrect.

Focusing on innovative drugs, innovative drug manufacturers do have exclusive rights over their innovations for a set period, but this is by design. The government grants manufacturers of novel medicines exclusive rights to ensure that companies have an opportunity to cover their large capital costs.

Developing these drugs is a costly, lengthy, and high-risk endeavor. The estimated fully capitalized costs per approved new drug are \$2.6 billion, or \$2.9 billion including post marketing research and development expenditures.⁴ In aggregate, the research and development expenditures made by PhRMA member companies alone was \$104 billion in 2024.⁵ The average time to bring a new drug to marketing approval is between 10 and 15 years.⁶

Despite the large investments and more than one decade of time devoted toward developing an innovative drug, the probability of clinical success is still exceptionally low. In a 2022 analysis, Schuhmacher et al. estimated that the average success rate – defined as the likelihood of approval (LOA) from phase I trial to FDA approval – is 14.3 percent.⁷ Chancellor (2024) documents a decline in the LOA over time finding that between 2014 and 2023, the success rate has fallen further to 6.7 percent.⁸ In other words, nearly 94 percent of new drugs entering human trials these days are not being approved despite the significant expense that has gone into their development! These low success rates demonstrate the inherent riskiness associated with innovative drug development.

“ These low success rates demonstrate the inherent riskiness associated with innovative drug development.

Once a drug has run the development and approval gauntlet, there is a limited exclusivity period in which the company can attempt to earn a return – which is not guaranteed. In fact, ten years after approval, one-half of approved drugs still have not covered their cost of development.⁹ The substantial chance that a drug will not be commercially successful creates an additional risk for innovative drug developers. Without an opportunity to recover all these investments, the incentive for manufacturers to continue the long and risky process of developing innovative medicines would diminish significantly. Because the U.S. healthcare system currently provides the opportunity to cover the full risk-adjusted capital costs of developing medicines, recent drug innovations have enabled transformative improvements in treating cancer, heart disease, and diabetes. Many of these innovations would never have occurred without the positive incentives created by the enforcement of intellectual property rights for innovative medicines.

Profitability Across the Healthcare Sector: A Comparative Evaluation

Given all the costs and risks associated with developing innovative medicines, simply examining the list prices on innovative drugs does not provide sufficient information to determine whether innovative drug manufacturers are earning excessive returns (e.g., they are price gouging). Answering this question requires an assessment that accounts for the risk-adjusted profitability of the drug manufacturing industry compared to other private industries. If the risk-adjusted returns of the biopharmaceutical sector are not excessive relative to other industries – including other industries operating in the healthcare market – then the foundation of the drug price control argument would be undermined.

To evaluate the relative risks and returns of the innovative drug manufacturers, we examined the net return on capital for the pharmaceutical and biotechnology industries compared to other major U.S. healthcare industries as well as the overall industry average. The U.S. healthcare industries examined include more than 1,200 publicly-traded U.S.-based companies operating across five industries between 2022 and 2024 including,¹⁰

- Biopharmaceutical manufacturers, which include biotechnology and pharmaceutical companies
- Healthcare information technology (IT), which includes companies such as IQVIA Holdings (IQV) and Danaher Corp. (DHR)
- Healthcare products, which include companies such as Abbott Laboratories (ABT)
- Hospitals and healthcare facilities, which include companies such as Universal Health Services, Inc. (UHS), and
- Health insurers, PBMs, and other healthcare support services, which include companies such as UnitedHealth Group Inc. (UNH), Elevance Health Inc. (ELV), CVS Health Corp. (CVS), the Cigna Group (CI), and drug wholesalers/distributors such as McKesson Corp. (MCK) and Cencora Inc. (COR).

As the nonpartisan Congressional Budget Office (CBO) noted, “estimating the long-term profits that manufacturers of brand-name drugs realize requires examining the entire life cycle of development of a portfolio of drugs and the sales of those drugs. In CBO’s assessment, those costs (including long-term capital costs) and revenues constitute the most comprehensive measures of profitability.”¹¹ Put differently, obtaining a more accurate assessment of the profitability of pharmaceutical companies requires an assessment of the long-term profits that accounts for the companies’ cost of capital.

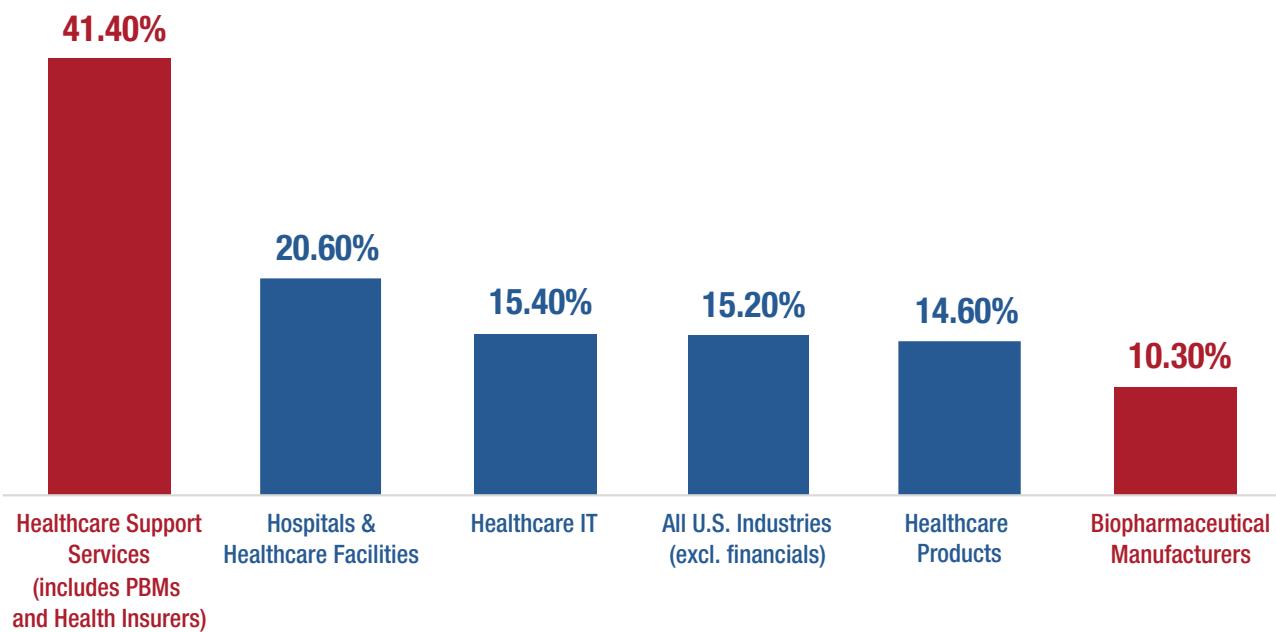
The CBO notes that “some analyses that have made such an adjustment have found that, compared with other industries, the pharmaceutical industry does not have unusually high profits. A pair of recent studies found that when capital costs and financial risks are taken into account, the pharmaceutical industry’s profits are close to—or just below—the middle of the distribution of all industries and might be trending downward.”¹²

Due to these concerns, analyses that rely on comparisons of net income margins across industries provide an inaccurate profitability assessment. They fail to properly account for the research and development as a long-term asset,¹³ as well as the losses and bankruptcies associated with unsuccessful enterprises.

Accounting for these realities, we estimate, by industry, the return on capital, the cost of capital, and the difference between these measures – each industry’s economic value added (EVA). The return on capital measures how efficiently each industry uses its capital – debt and equity – to generate profits. The cost of capital measures the required return that companies must pay their bondholders and equity shareholders for the financial risk they bear.¹⁴ The difference between these measures, EVA, “evaluates a company’s ability to generate financial returns above its cost of capital, indicating true economic profit.”¹⁵ The *Technical Note* provides greater details regarding the methodology as well as the definition of the healthcare industries and financial indicators.

Figure 1 presents the return on capital invested for the five healthcare industries and the total U.S. market excluding financials. Between 2022 and 2024, biopharmaceutical companies generated a 10.3 percent return on capital. These returns are less than the return on capital earned by all U.S. industries excluding financials (15.2 percent) and all other healthcare industries. Noteworthy, healthcare support services companies, which include integrated healthcare insurance companies, pharmacy benefits managers (PBMs), pharmacies, and drug wholesalers and distributors, enjoyed a 41.4 percent return on capital.

Figure 1
Innovative Drug Manufacturers Earn Below Average Return on Capital While PBMs and Insurers Earn A Return on Capital That Is Significantly Higher Than Average

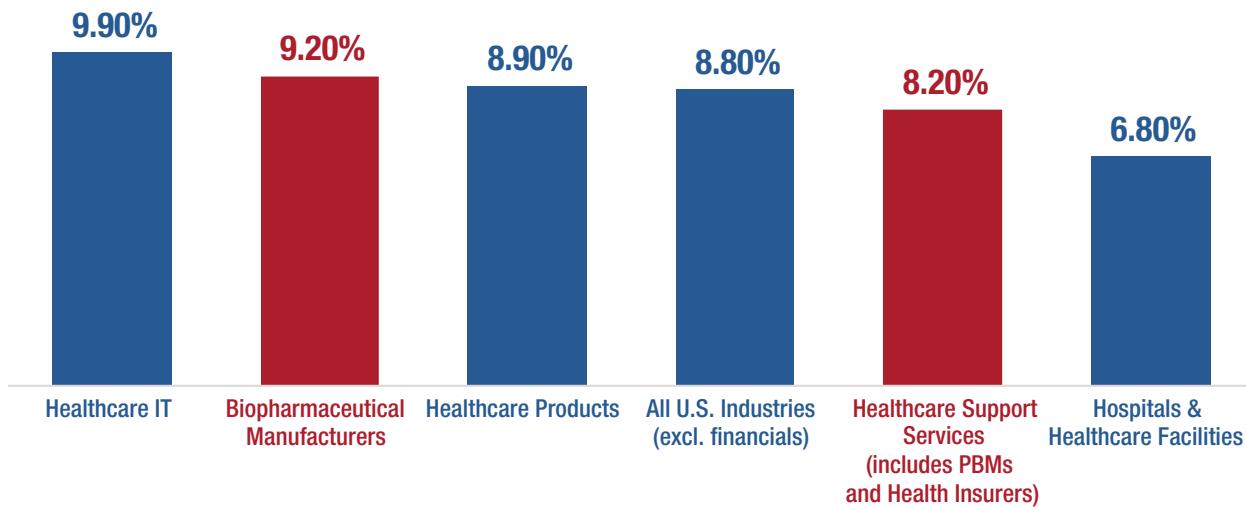


Source: Author calculations based on data from Damodaran Online.

Between 2022 and 2024, the biopharmaceutical industry’s cost of capital averaged 9.2 percent per year reflects the lengthy and risky process of discovering new drugs. These costs are higher than the cost of capital for all U.S. industries excluding the financials (8.8 percent) and the 8.2 percent cost of capital for the healthcare support services companies (insurance and PBM companies), see Figure 2. Healthcare IT companies have the highest cost of capital.

Figure 2

Innovative Drug Manufacturers Face an Above Average Cost of Capital While PBMs and Insurers Have Lower Than Average Cost of Capital

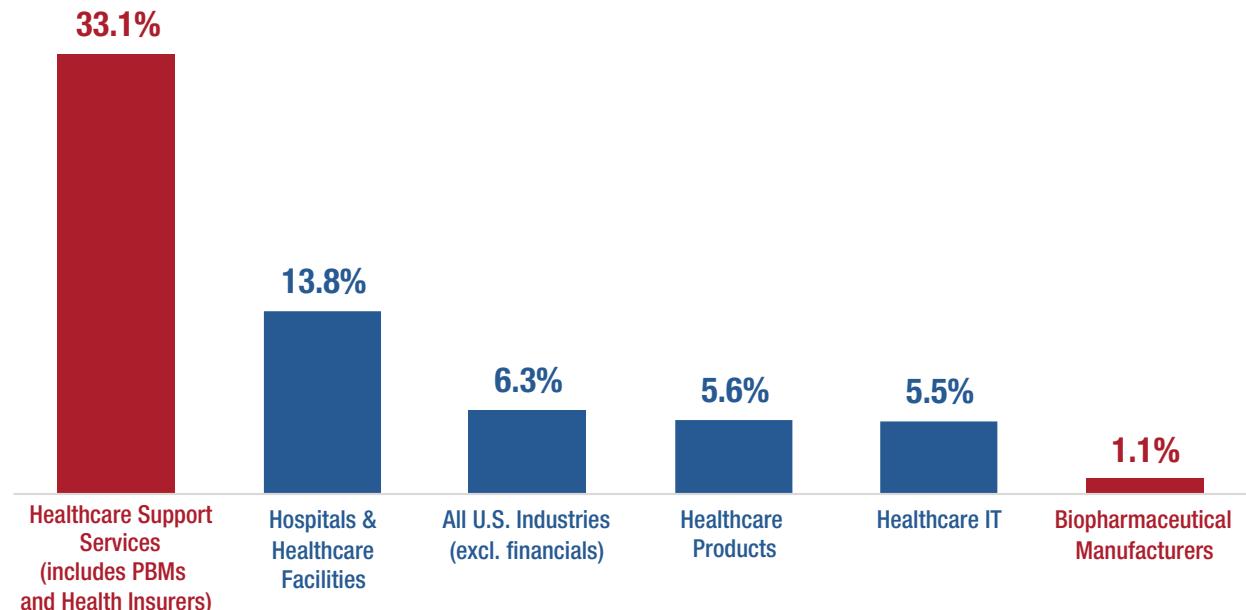


Source: Author calculations based on data from Damodaran Online.

With a lower return on capital and higher cost of capital, EVA for innovative drug manufacturers between 2022 and 2024 (1.1 percent) is significantly lower than the EVA for U.S. industries overall (6.3 percent) and the other healthcare industries examined. The EVA for healthcare support services was an exceptionally high 33.1 percent. Publicly-traded hospitals also had relatively high risk-adjusted economic returns (13.8 percent). Healthcare IT companies and healthcare products manufacturers had a similar lower risk-adjusted return profile as biopharmaceuticals, but less pronounced.

Figure 3

Innovative Drug Manufacturers Earn Below Average Economic Profits and Are the Lowest Among Other Major Healthcare Industries

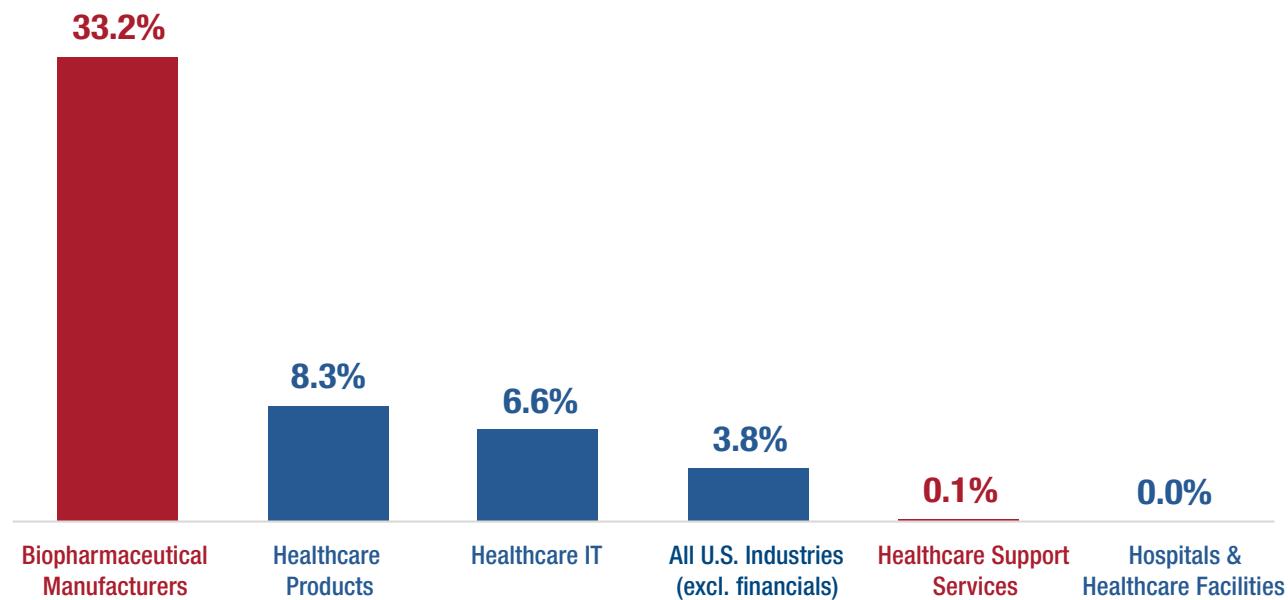


Source: Author calculations based on data from Damodaran Online.

To augment the risk-adjusted return measures, we also compare the total amount of research and development (R&D) expenditures relative to sales for each industry. R&D is often used as a proxy for risk because industries that must invest a greater share of their revenues into R&D will have longer development cycles. Industries with longer development cycles tend to have higher failure rates, require larger upfront investments, and must forgo a greater number of alternative business opportunities. Consequently, industries that require large upfront R&D expenditures are greater risks.

The relative investment in R&D by industry provides perspective on the risks that drug manufacturers take compared to the other healthcare industries and U.S. industries overall, see Figure 4. The innovative drug industry invests 33.2 percent of its revenue into research to develop the next generation of therapies. The next most research-intensive healthcare industry – the healthcare products industry, which includes manufacturers of medical equipment and hospital supplies – invests one-fourth the amount into R&D as the drug industry. The healthcare support services industry invests one-tenth of one percent. For comparison, the average industry invested 3.8 percent of their sales into R&D.

Figure 4
Research and Development Expenditures as a Share of Revenues
Are Highest for Innovative Drug Manufacturers
Compared to Other Major Healthcare Industries



Source: Author calculations based on data from Damodaran Online.

Because drug manufacturers' risk and capital adjusted returns lag both other major healthcare sectors and the overall U.S. industry average, the data do not support claims of price gouging. The findings, consequently, demonstrate that the core argument used by price control advocates is simply false.

Conclusion

Policymakers advocating for drug price controls misconstrue the financial risks and capital costs required to develop innovative drugs. Recent data confirm that the returns of the biopharmaceutical industry are not excessive compared to the average U.S. industry or other major healthcare industries. This is due to the high risk-adjusted capital costs of developing innovative drugs that include successfully developing the drug, obtaining FDA approval, and creating a commercially viable medicine. Accounting for this lengthy, expensive, and inherently risky process of innovation demonstrates that the returns to the drug industry are far from exploitive.

It is important to note that simply because the returns of drug manufacturers are inconsistent with the price gouging allegation does not mean that there are no problems with the drug reimbursement and payment system. It's just the opposite. The drug reimbursement and payment system is opaque, excessively complicated, and creates incentives that are antithetical to patients' interests. Consequently, reforming this system will more effectively promote greater drug affordability for patients than the misguided drug price control policies.

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Technical Note

The report analyzes the risk and reward of five industries in the U.S. healthcare sector and the overall U.S. industries (ex financials) between 2022 and 2024. Industry data and industry classifications are obtained from Damodaran Online. The U.S. healthcare industries examined include more than 1,200 publicly-traded U.S.-based companies operating across five industries between 2022 and 2024 including,¹⁶

- Biopharmaceutical manufacturers, including the drugs (biotechnology) and drugs (pharmaceutical) industries weighted by the book value of capital for each sector
- Healthcare information technology (IT), which includes companies such as IQVIA Holdings (IQV) and Danaher Corp. (DHR)
- Healthcare products, which include companies such as Abbott Laboratories (ABT)
- Hospitals and healthcare facilities, which include companies such as Universal Health Services, Inc. (UHS), and
- Health insurers, PBMs, and other healthcare support services, which include companies such as UnitedHealth Group Inc. (UNH), Elevance Health Inc. (ELV), CVS Health Corp. (CVS), the Cigna Group (CI), and drug wholesalers/distributors such as McKesson Corp. (MCK) and Cencora Inc. (COR).

In 2024, the U.S. healthcare sector includes 766 biopharmaceutical manufacturers, 116 healthcare IT companies, 218 healthcare products, 33 hospital/healthcare facilities, and 113 healthcare support services.

Each industry's return on capital was measured by dividing the industry's after-tax operating income by the sum of its book value of equity and its book value of debt minus the amount of cash on hand, see equation (1).

$$(1) \text{Return on capital (\%)} = \text{After-tax operating income} / (\text{Book value of equity} + \text{Book value of debt} - \text{Cash})$$

Industry cost of capital is measured as the sum of the industry's cost of equity and its cost of debt, weighted by the amount of equity financing relative to the amount of debt financing, see equation (2).

$$(2) \text{Cost of capital (\%)} = \text{Cost of equity} \times (\text{Equity} / (\text{Debt} + \text{Equity})) + \text{Cost of debt} (1 - \text{Marginal tax rate}) \times (\text{Debt} / (\text{Debt} + \text{Equity}))$$

Economic value added (EVA) for the five U.S. healthcare industries and the overall U.S. industry EVA is calculated by subtracting each industry's cost of capital from its return on capital, see equation (3).

$$(3) \text{Economic Value Added} = \text{Return on capital} - \text{Cost of capital}$$

The relative R&D investment is estimated by dividing the total amount of research and development expenditures for each industry by the total industry sales, see equation (4).

$$(4) \text{Relative R&D investment (\%)} = \text{Total R&D Expenditures} / \text{Total Industry Sales.}$$

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