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Trump's Drug Pricing Order and the Domestic Economic Trade-Off

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1 Introduction

Prescription drug prices in the USA far exceed those in other nations. A recent RAND Corporation report finds that, on average, US prices are 2.78 times higher than those in 33 peer countries [1]. This disparity widens when focusing on brand-name therapies: US prices for these products average 4.22 times the levels seen elsewhere. Conversely, the RAND study shows that unbranded generic drugs—constituting 90% of US prescription volume—cost only about 67% of the average price observed in the comparison nations. These figures are based on publicly available list prices and do not account for confidential rebates and discounts, particularly prevalent in the US system—limiting direct comparability with net prices abroad.

High pharmaceutical prices in the US have long drawn criticism for burdening patients, insurers, and government budgets [2]. In response to these concerns, President Donald J. Trump issued an Executive Order on 12 May 2025, directing the Department of Health and Human Services to communicate “most-favored-nation” (MFN) price targets to pharmaceutical manufacturers within 30 days [3]. Under the order, US patients must be able to access the lowest price available for the same drug in any comparably developed nation. Should voluntary compliance fail, the Secretary of Health and Human Services shall propose regulatory rule-making to impose most-favored-nation pricing and consider additional measures—such as drug importation and antitrust enforcement—to ensure alignment with the directive.

This Executive Order not only raises questions of legal feasibility and industry opposition but also shifts pricing authority from pharmaceutical manufacturers to the government—through tools such as external reference pricing (ERP)—which may reduce the revenues available for

reinvestment in domestic research and production [4], with broader implications for domestic value creation and economic performance. Valuating the full economic impact of such reforms requires recognizing the US leadership in biotech innovation (the USA held 39% of global biotechnology patents in 2020 [5]) and the fact that approximately 50% of US pharmaceutical sales are for products manufactured domestically [6].

This editorial examines the economic logic and empirical implications of high drug prices for US gross domestic product (GDP), distinguishing between nominal spending and actual domestic value creation. The conventional narrative—that Americans are simply subsidizing foreign healthcare systems—oversimplifies the economic dynamics at play. If a significant portion of industry revenues is reinvested in areas such as research, manufacturing, or employment within the USA, they can contribute meaningfully to economic output. For example, a recent analysis by the WifOR Institute [7] shows that the pharmaceutical sector can be a major driver of GDP growth when industry revenues support domestic innovation and production. However, this potential is constrained by factors such as profit distribution to shareholders, offshore activities, and financial leakage through intermediaries. Ultimately, understanding the real economic contribution of drug prices requires tracing not only how much is spent but also where and how that money circulates within the national economy.

Given that the price gap with other countries pertains to brand-name drugs rather than unbranded generics, this editorial focuses exclusively on the former. Branded medicines also account for the majority of pharmaceutical spending in the USA [8], and most high-value imports—from Ireland, Germany, Switzerland, and other leading production hubs—are patented brand-name products. It is therefore reasonable to model the import mix as primarily branded.

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2 Pharmaceutical Spending and Domestic GDP Creation

In national accounts, GDP reflects the value of goods and services produced within a country. While the US healthcare system spent approximately US \$603 billion on prescription drugs in 2021, this figure includes both brand-name and generic drugs across retail and nonretail settings [8]. Given that brand-name drugs accounted for roughly 80% of total drug spending [8], this corresponds to an estimated US \$482 billion in expenditures of brand-name products.

However, not all of that US \$482 billion generates added domestic value. Between 2009 and 2018, the 18 US Pharmaceutical Research and Manufacturers of America (PhRMA) member firms in the S&P 500 reported US \$3200 billion in cumulative revenue [9]. They invested US \$544 billion in research and development (R&D)—approximately 17% of that revenue—and, according to PhRMA, about 81.2% of this R&D was conducted within the USA [10], implying roughly 13.8% of revenue was plowed back into domestic research.

They are also estimated to have spent approximately US \$128 billion on capital expenditures, assuming a 4% capex-to-revenue ratio [11]. If the USA's 50% share of global pharmaceutical sales [12] is used as a rough—albeit conservative—proxy on the assumption that sales volume drives plant siting and expansion (i.e., companies invest where demand is largest), then about 2% of revenue was likely allocated to onshore capital investments. Alternatively, applying the domestic R&D share of 81.2% as a proxy for capex localization suggests a higher onshore capex estimate of approximately 3.2% of revenue.

In contrast, these firms returned US \$622 billion to shareholders via buybacks and dividends [9]. Taken together, this suggests that roughly 15.8% to 17.1% of cumulative revenue was reinvested domestically in R&D and manufacturing onshore (13.8% for R&D plus 2.0–3.2% for capex), compared with 19.4% directed toward shareholder distributions. It is also important to note that marketing expenses typically run around 30% of revenues, underscoring the sheer scale of promotional spending in the industry [13].

Upstream leakages also occur: up to 41% of US pharmaceutical spending is absorbed by pharmacy benefit managers (PBMs), insurers, and providers before it reaches manufacturers [14], and while these intermediaries handle claims adjudication, rebate negotiation, and distribution, their net contribution to cost reduction and health outcomes remains contested.

Assuming a value-added multiplier of 2.0 for the US biopharmaceutical industry [10]—that is, for every dollar

reinvested domestically by the industry, an additional dollar of economic activity is generated through upstream and downstream effects—the GDP impact can be estimated. The multiplier reflects not only the direct effects of reinvestment (e.g., funding researchers, facilities, or suppliers), but also the indirect and induced effects that ripple through supporting industries, such as equipment manufacturing, IT services, and local employment. In this case, if only 59% of spending reaches manufacturers after accounting for intermediaries, and 16% of the resulting retained revenue is reinvested in domestic activities, then the GDP contribution from spending of US \$241 billion (B) for products manufactured domestically would be:

- Retained after intermediary cuts: $\text{US } \$241\text{B} \times 0.59 = \text{US } \142B .
- Of that, reinvested: $\text{US } \$142\text{B} \times 0.16 = \text{US } \23B .
- Applying the multiplier: $\text{US } \$23\text{B} \times 2.0 = \text{US } \46B GDP effect.

This figure represents the estimated domestic GDP contribution from half of total drug spending, while the imported half generates no domestic value added. That is, allocating a significant share of pharmaceutical spending to imports may generate a downward multiplier effect [15], as funds exit the domestic economy and fail to stimulate supply chains, employment, or innovation-driven investment.

This analysis also highlights the relevance of opportunity costs. In a counterfactual scenario where the US \$241 billion currently spent on pharmaceutical imports were instead allocated to domestically produced drugs—under the same assumptions about intermediary deductions, reinvestment rates, and multiplier effects—the calculation would mirror the one above:

- $\text{US } \$241\text{B} \times 0.59$ (after intermediaries) $\times 0.16$ (reinvestment rate) = US \$23B reinvested
- $\text{US } \$23\text{B} \times 2.0$ (value-added multiplier) = US \$46B in additional GDP

In this scenario, the opportunity cost of relying on imports equals the forgone domestic GDP contribution. Since approximately 50% of pharmaceutical sales stem from domestically manufactured products and 50% from imports, the net macroeconomic effect of high drug prices may, in theory, cancel out. On one hand, higher prices increase the domestic GDP contribution through higher reinvestment; on the other hand, they raise the opportunity cost of import leakage. This conclusion, however, depends on the assumption that redirected import spending would follow the same reinvestment rate and productivity profile as the domestic pharmaceutical sector.

However, when drug prices fall, the resulting savings from lower-priced imports may not necessarily be redirected into more productive sectors of the economy. Intermediaries—such as PBMs and insurers—may capture a disproportionate share of the savings through opaque rebate structures and administrative margins, rather than passing them on to patients or reinvesting them in high-multiplier domestic activities. This weakens the potential GDP benefit of lower pharmaceutical spending, as the financial gains fail to generate equivalent value-added elsewhere in the economy. This may lead to an overall negative effect on GDP if the decline in reinvestment by US-based manufacturers is not adequately compensated by the productive use of the savings from lower-priced imports.

3 Global Market Responses and Impacts

While it is theoretically true that higher prices in ex-US markets could generate additional revenue that boosts domestic reinvestment and economic value in the USA, this scenario is highly unlikely. Pharmaceutical companies already face strict price regulations, health technology assessments, and budget constraints in most countries outside the USA, making broad price increases difficult to implement. Moreover, significant variation in national purchasing power means that many lower-income countries would not accept substantial price hikes. Although there is evidence suggesting that ERP can lead to higher launch prices in traditionally low-price countries—precisely because manufacturers anticipate price spillovers to higher-income referencing countries [16]—this strategy is not a reliable or sustainable solution. In practice, such preemptive pricing behavior is limited by political resistance, affordability constraints, and regulatory pushback. Consequently, the idea that ex-US price increases could offset lower US prices on a global scale appears highly constrained and unlikely to succeed in practice. Instead, the more likely dynamic consequence of widespread reference pricing is delayed launch or restricted access in lower-income countries [17], as manufacturers seek to avoid triggering international price convergence. In response, national governments may adopt defensive pricing strategies to shield themselves from the ripple effects of US pricing reforms. One such strategy may involve permitting higher list prices while negotiating substantial confidential rebates or discounts through managed entry agreements. This allows countries to preserve access and affordability while preventing the inclusion of true net prices in the US reference basket. Additionally, some countries may revise their ERP basket composition to exclude nations likely to increase prices in response to US referencing.

If manufacturers anticipate a sustained downward shift in US prices—without a compensatory increase in ex-US

revenues—this could lower expected returns and, in turn, dampen incentives for innovation. Conversely, if US price reductions are viewed as a one-off correction—due to the possibility that future administrations may reverse or dilute the policy—or if international prices adjust upward in response, the overall impact on expected profitability may be limited. In addition, the expected regional and social distributional consequences warrant consideration. While lower US prices may enhance affordability and access, particularly for uninsured or underinsured populations, they could also influence global launch strategies and access timelines in ways that disproportionately affect lower-income countries.

If reduced revenues lead to lower reinvestment by US-based manufacturers, but the savings from lower-priced imports are not channeled into sectors with comparable multipliers or domestic job creation, the net effect on GDP may be negative.

4 Conclusions

The central challenge is not that the USA subsidizes other countries through high drug prices—a claim that misrepresents how pharmaceutical spending circulates. While US patients do face significantly higher prices, a large share of this spending supports domestic R&D, employment, and infrastructure. The real inefficiencies are internal, stemming from structural features of the US system—most notably, a highly financialized pharmaceutical sector and powerful intermediaries that capture considerable value without proportional contribution [18, 19]. As this analysis shows, the positive and negative effects of high drug prices on GDP may largely cancel each other out: while higher prices increase domestic reinvestment, they also raise the opportunity cost of import leakage. If savings from reduced US prices are not reinvested productively, or are captured by intermediaries, the net macroeconomic effect may turn negative. Nonetheless, while high pharmaceutical prices stimulate the US economy through reinvestment and multiplier effects, the immediate financial burden falls disproportionately on patients—particularly in a system marked by inadequate insurance coverage and high out-of-pocket costs. This, however, is primarily a problem of how health expenditures are distributed and financed, not necessarily of drug pricing itself. Consequently, policy responses focused solely on ERP may overlook deeper inefficiencies in the allocation of pharmaceutical spending and inequities in its financing. The real challenge is not merely determining how high drug prices should be, but improving the translation of pharmaceutical spending into domestic economic and societal value—and to ensure that the financial burden is shared equitably among patients, payers, and the public sector.

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References

- Mulcahy AW, Schwam D, Lovejoy SL. International prescription drug price comparisons: estimates using 2022 data. Santa Monica, CA: RAND Corporation, 2024. https://www.rand.org/pubs/research_reports/RRA788-3.html. Accessed 14 June 2025.
- KFF (Kaiser Family Foundation). KFF health tracking poll—September 2024: support for reducing prescription drug prices remains high, even as awareness of IRA provisions lags. Published 13 September 2024. Available at: <https://www.kff.org/medicare/poll-finding/kff-health-tracking-poll-september-2024-support-for-reducing-prescription-drug-prices-remains-high/>. Accessed 14 June 2025.
- Trump DJ. Executive order on delivering most-favored-nation prescription drug pricing to American patients. The White House; 12 May 2025. <https://www.whitehouse.gov/presidential-actions/2025/05/delivering-most-favored-nation-prescription-drug-pricing-to-american-patients/>. Accessed 14 June 2025.
- Kourouklis D, Gandjour A. Pharmaceutical spending and early-stage innovation in EU countries. *Ind Innov*. 2022;29(10):1141–70.
- European Commission, Joint Research Centre, Grassano N, Napolitano L, M'barek R, Rodriguez Cerezo E, Lasarte Lopez J. Exploring the global landscape of biotech innovation: preliminary insights from patent analysis, Publications Office of the European Union, Luxembourg, 2024. https://doi.org/10.2760/567451_JRC137266
- Reuters. US pharma tariffs would raise US drug costs by \$51 billion annually, report finds. 2025. <https://www.reuters.com/business/healthcare-pharmaceuticals/us-pharma-tariffs-would-raise-us-drug-costs-by-51-bln-annually-report-finds-2025-04-25/>.
- WifOR Institute. The economic impact of the global pharmaceutical industry. International Federation of Pharmaceutical Manufacturers & Associations (IFPMA). 2024. Retrieved from https://www.ifpma.org/wp-content/uploads/2024/11/2024_WifOR_Economic_Impact_Global_Pharmaceutical_Industry_Report.pdf. Accessed 14 June 2025.
- Parasrampur S, Murphy S. Trends in prescription drug spending, 2016–2021. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services; 2022.
- Institute for New Economic Thinking. Financialization of the U.S. Pharmaceutical Industry. 2019. <https://www.ineteconomics.org/perspectives/blog/financialization-us-pharma-industry>. Accessed 14 June 2025.
- Pharmaceutical Research and Manufacturers of America; TEConomy Partners, LLC. The Economic impact of the U.S. biopharmaceutical industry: 2024 report. 2024. Retrieved 19 May 2025, from <https://cdn.agility.io/pharma/policy-issues/research-ecosystem/economy/The-Econ-Impact-of-US-Biopharma-Industry-2024-Report.pdf>. Accessed 14 June 2025.
- Risk Concern. Capital expenditure (CAPEX) to revenue ratio by sector & industry in the U.S. 2022. Retrieved 19 May 2025, from <https://www.riskconcern.com/market-data-and-statistics/capital-expenditure-%28capex%29-to-revenue-ratio-by-sector-%26-industry-in-the-u.s/>.
- Parasrampur S, Murphy, S. Comparing U.S. and international market size and average pricing for prescription drugs, 2017–2022. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. December 2024.
- Staton T. Does pharma spend more on marketing than R&D? A numbers check. FiercePharma. 2023. Retrieved from <https://www.fiercepharma.com/regulatory/does-pharma-spend-more-on-marketing-than-r-d-a-numbers-check>.
- The Pharma Letter. Intermediaries capture 41% of price paid for drugs in USA, study shows. 2017. <https://www.thepharmalatter.com/pharmaceutical/intermediaries-capture-41-of-price-paid-for-drugs-in-usa-study-shows>. Accessed 14 June 2025.
- Shaikh M, Gandjour A. Pharmaceutical expenditure and gross domestic product: evidence of simultaneous effects using a two-step instrumental variables strategy. *Health Econ*. 2019;28(1):101–22.
- Danzon PM, Epstein AJ. Effects of Regulation on Drug Launch and Pricing in Interdependent Markets. In: Bolin K, Kaestner R, editors. The economics of medical technology (Advances in Health Economics and Health Services Research, Vol. 23). Leeds: Emerald Group Publishing Limited; 2012. p. 35–71. [https://doi.org/10.1108/S0731-2199\(2012\)0000023005](https://doi.org/10.1108/S0731-2199(2012)0000023005).
- Maini L, Pammolli F. Reference pricing as a deterrent to entry: evidence from the European pharmaceutical market. *Am Econ J Microecon*. 2023;15(2):345–83.
- Lazonick W, Tulum Ö. US biopharmaceutical finance and the sustainability of the biotech business model. *Res Policy*. 2011;40(9):1170–87.
- U.S. Federal Trade Commission. Pharmacy benefit managers: the powerful middlemen inflating drug costs and squeezing main street pharmacies. 2024. https://www.ftc.gov/system/files/ftc_gov/pdf/pharmacy-benefit-managers-staff-report.pdf.