Profitability of Biopharmaceutical Manufacturers and PBM/Health Insurance Conglomerates

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PBM/Health Insurance Conglomerates

A typical distribution chain consists of manufacturers who create products, and intermediaries who purchase those products in bulk and sell smaller quantities to retailers, who then sell directly to consumers. Manufacturers, who risk capital to innovate and produce goods, generally expect to earn higher profits than intermediaries, who provide services moving goods to consumers or facilitating payments along the chain while assuming relatively little risk. However, that is not the case in the biopharmaceutical distribution chain, where manufacturers incur nearly all the risk, yet higher returns are obtained further down the chain.

Consolidation among downstream firms in the prescription drug distribution chain has resulted in a few very large, integrated companies that control most of the downstream market. The largest of these conglomerates now combine multiple drug distribution functions into one organization, consisting of a pharmacy benefits manager (PBM) which negotiates formulary placement and drug pricing on behalf of its associated health insurance company administering health and drug insurance benefits for its members, and providing prescription drugs directly to patients through associated retail pharmacy segments.

These conglomerates take on very little risk yet obtain outsized profits compared to drug developers who invest considerable sums of capital and time to innovate, develop and produce new medicines. As Geoffrey Joyce, director of Health Policy at the Leonard D. Schaeffer Center for Health Policy & Economics at the University of Southern California, wrote, "large PBMs are highly profitable intermediaries that typically do not take possession of the drug, bear little to no risk, and minimally innovate. As such, PBM profit margins are much higher than other players in the supply chain."[2] Additionally, the PBM segments of these organizations currently support most of their growth. The top three PBM/health insurance conglomerates – UnitedHealth Group, CVS/Aetna and, Cigna – "showed much more robust growth in the divisions that operate their pharmacy benefit management (PBM) businesses… those companies are now getting 60% of their revenues from their PBM divisions…"[3]

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[2] Geoffrey Joyce, "An economist's change of heart: It's time to regulate the prescription-drug middlemen," *MarketWatch*, August 13, 2018.

[3] UnitedHealth, CVS/Aetna, Cigna Pulled In Close To A Trillion Dollars Last Year, Mostly As Drug Middlemen. February 9, 2023, https://wendellpotter.substack.com/p/unitedhealth-cvsaetna-cigna-pulled.

While activists routinely ascribe blame for rising U.S. health care costs to the profits of biopharmaceutical manufacturers, this analysis assesses the financial performance of key sectors in the biopharmaceutical supply chain and finds lower profit rates for manufacturers than those of the PBM/health insurance conglomerates.

If there are savings to be found through optimization of the biopharmaceutical supply chain, policymakers should focus on proposals that incentivize innovation among manufacturers and encourage competition throughout the distribution chain.

> "Warren Buffett has said that the best business to be in is a royalty on the growth of others, requiring little capital itself. America's drug-distribution industry, dominated by an oligopoly of three companies, is the perfect example because very little investment is needed. Biotech and pharma companies take most of the risk by spending billions on drug discovery while the distributors make a small, but consistent, cut of the riches by getting the medications delivered safely."
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> --David Wainer, *The Wall Street Journal*[4]

Risk and Profitability of Sectors in the Biopharmaceutical Distribution Chain

Profitability trends along the biopharmaceutical distribution chain are unlike other sectors. Whereas most manufacturers have higher margins than firms in their downstream supply chains, biopharmaceutical manufacturers do not.[5] To observe this, we use the latest publicly available financial data from New York University's Aswath Damodaran.

A PBM is typically a division within a larger healthcare corporation such CVS Health Corporation, CIGNA Corporation, or UnitedHealth Group. Since separate financial data of PBMs are not available (except for Cigna), we use consolidated financial data of the parent companies, aggregated into the "healthcare support services" sector in the Damodaran dataset. Our analysis compares the averages of the most recent three years of data measuring economic profitability and R&D investment of drug manufacturers and healthcare support services (HSS) encompassing the PBM/health insurance conglomerates.

From 2019-21, the economic profitability (return on invested capital minus cost of capital) of the biopharmaceutical sector averaged 7.7 percent. During the same period, the economic profitability of the healthcare support services sector averaged 26.7 percent. On the other hand, risk, as measured by R&D investment, was undertaken almost entirely by the manufacturers (see chart).[6] From the results, we can see that returns in the biopharmaceutical sector are closer to the average for all industries, and considerably lower than the HSS sector. Risk as measured by R&D investment undertaken by the HSS sector is approximately one percent of the level taken by biopharmaceuticals. Over 20 percent of revenue in the biopharmaceutical sector is risked/reinvested each year in the search for new cures, while HSS risks/reinvests only about a tenth of one percent of revenue into R&D each year, considerably less than even the average for all industries.

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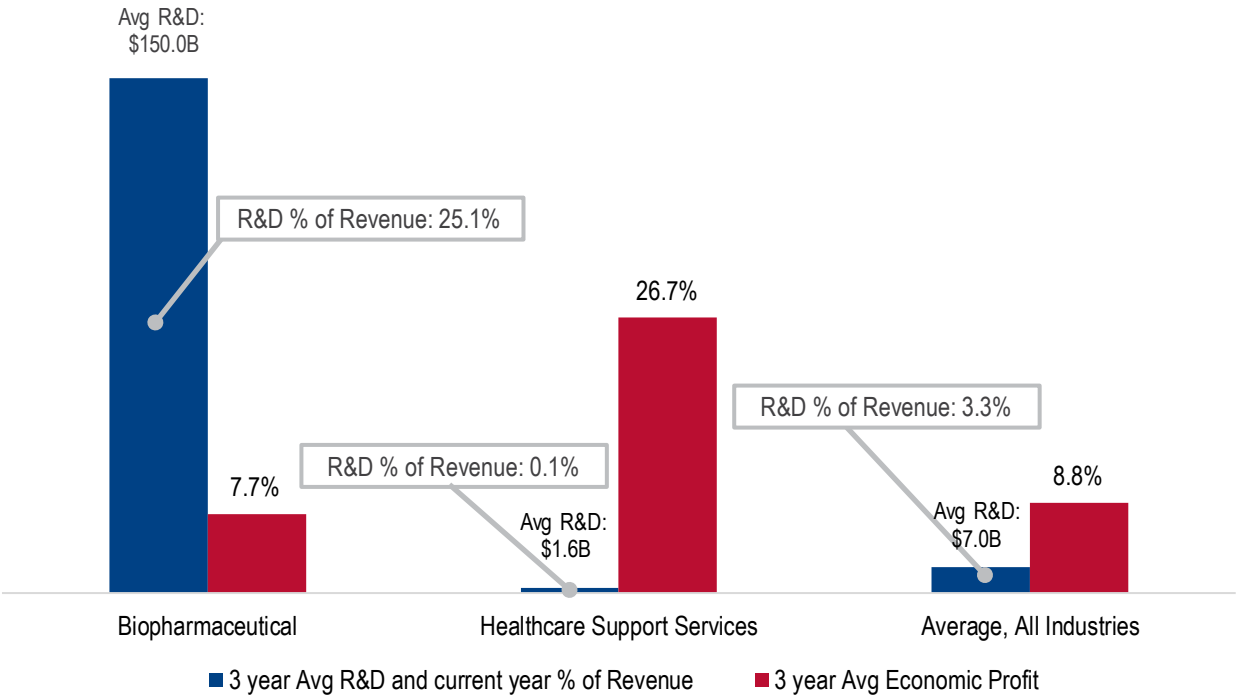
[4] David Wainer, "Failing in an Oligopoly Takes Serious Mismanagement," *The Wall Street Journal*, August 22, 2022, https://www.wsj.com/articles/failing-in-an-oligopoly-takes-serious-mismanagement-11661041126

[5] According to the latest 2021 profit margins by U.S. industry, EBITDA/sales of various consumer goods manufacturers tend to be higher than EBITDA/gross income of various retailers. Damodaran Online. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html

[6] R&D data from Aswath Damodaran, http://www.damodaran.com; EVA calculations using Damodaran data from R. Manning, Intensity LLC. Economic Profits in the Biopharmaceutical Industry. 2022.

Less Risk, More Profits for PBM/MCO Conglomerates
R&D and Economic Profits
Average of 3 most recent years



Conclusion

Biopharmaceutical manufacturers require large investments of risk capital and time to discover medicines to treat and cure diseases. The U.S. biopharmaceutical industry invested an average of over $150 billion in drug discovery and development over each of the latest three years.[7] The average time to bring a new drug to marketing approval has been estimated at more than 10 years and the estimated fully capitalized total costs per approved new drug are nearly $2.6 billion. Further, the overall probability of clinical success is estimated to be 11.8%.[8] Despite the lengthy, expensive, and inherently risky process of investing in innovation, the profitability of biopharmaceutical manufacturers is lower than the profitability of PBM/health insurance conglomerates, who do not expose themselves to the same degree of risk.

[7] Damodaran.

[8] DiMasi, Joseph A., Henry G. Grabowski, and Ronald W. Hansen. 2016. "Innovation in the pharmaceutical industry: New estimates of R&D costs." Journal of Health Economics.