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AstraZeneca Equity Research - Driving Growth through Innovation,
Strategic Portfolios, and Sustainability in Pharma

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This master's thesis delivers an in-depth analysis of AstraZeneca's financial performance, business model, and competitive positioning within the dynamic pharmaceutical industry. By examining the company's strategy, competitive advantages, and growth opportunities, the study highlights potential future successes and challenges. This equity research report provides investors with a comprehensive evaluation of AstraZeneca, offering valuable insights into the fair value of its stock to support well-informed investment decisions.

Keywords: Finance, Valuation, AstraZeneca, Pharmaceuticals

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This report is part of the AstraZeneca Equity Research Report – Well Positioned for Long-Term Sustainable Growth (annexed), developed by Noah Alexander Montoya Rodriguez and Timur Iakimov and should be read as an integral part of it.

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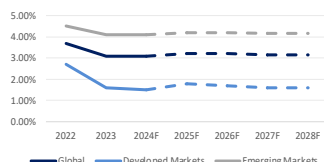
Introduction

This equity research report offers a thorough evaluation of AstraZeneca's financial performance, strategy, market positioning, and growth prospects, with a strong emphasis on valuation. The main goal is to provide investors with well-researched and objective insights to aid in informed decision-making. The report is divided into several sections, each offering a detailed analysis of AstraZeneca from different perspectives. The first section presents a microeconomic analysis, examining the company's business model, strategic approach, capital structure, and industry position. This is followed by a macroeconomic analysis of the pharmaceutical sector, providing a consolidated view of this dynamic industry, with a focus on key trends and the competitive landscape. Building on this foundation, AstraZeneca's financial performance is assessed to determine the viability of its operations and its long-term growth potential. This part is divided into two main areas: forecasts and key value drivers, and financial performance analysis. The first section explains the forecasting methodologies and identifies AstraZeneca's primary value and cost drivers. The second section provides an in-depth financial review, including ratio analysis and key financial metrics such as net debt and net working capital, to evaluate liquidity and profitability. The report then moves to the valuation of AstraZeneca, where the fair value of its stock is derived using detailed forecasts and market data. Multiple valuation methods are employed to ensure a robust and conservative target price, giving investors a reliable basis for decision-making. Additionally, scenario and sensitivity analyses are included to address market uncertainties, offering insights into potential risks that may affect the stock's valuation. In this particular section of the joint report, AstraZeneca's business model, strategic initiatives, and therapeutic areas are analyzed. It includes a macroeconomic overview, strategic initiatives, an examination of M&A activity and dividend policies, along with forecasts, key value drivers, and scenario and sensitivity analyses. The section concludes with an in-depth discussion of risks related to investing in AstraZeneca's stock. The other part of the joint report focuses on the company overview, including a SWOT analysis, ESG outlook, and an evaluation of the capital and shareholder structure as part of the microeconomic analysis. It also features the full financial analysis and complete valuation section, supported by a Monte Carlo simulation to model various outcomes. Overall, this report provides a comprehensive and well-rounded analysis of AstraZeneca, giving investors a clear understanding of the company's current standing and future potential, enabling them to make well-informed investment decisions.

Macroeconomic and industry overview

Macroeconomic Outlook

Figure 1: World Real GDP Growth Projection



Source: IMF, 2023

Global growth is projected at 3.1% in 2024 and 3.2% in 2025, boosted by U.S. resilience, emerging markets, and China's fiscal support. These rates are below the 2000–2019 average due to high interest rates, fiscal tightening, and low productivity growth. Inflation is declining faster than expected, with global inflation projected at 5.8% in 2024 and 4.4% in 2025¹ (Figure 1).

Pharmaceutical Industry Outlook

The global pharmaceutical industry has experienced remarkable growth over the past two decades, with revenues reaching approximately \$1.6 trillion in 2023.²

▪ R&D spending

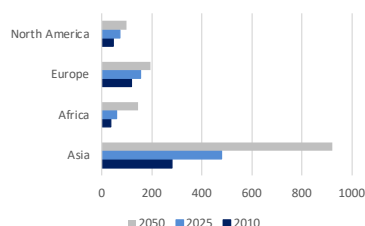
On the spending front, global expenditure on medicines at list prices grew by 35% over the past five years and is anticipated to climb another 38% by 2028. In the U.S., the growth forecast using estimated net prices has been revised upward by 3 percentage points to a CAGR of 2-5% through 2028. This adjustment reflects recent stronger growth trends and the anticipated increase in patient uptake of high-value therapies.³

Pharmaceutical companies are uniquely reliant on research and development, often allocating over 20% of their revenue to such efforts. For research-intensive firms with lower sales, this percentage can be even higher. The development of new drugs is essential for sustained growth, with sales from newly branded medicines contributing significantly to revenues. However, patent expirations pose a substantial risk, as they open the door to competition from generic drugs, leading to sharp revenue declines, as demonstrated by AbbVie's experience with Humira.

▪ Aging global population

The global population is aging rapidly, with those aged 60+ expected to double from 12% in 2015 to 22% by 2050. By 2025, older people outnumbered children under 5, and 80% of them will live in low- and middle-income countries by 2050.

Figure 2: Development of the global population aged 65 and over between 2010 and 2050 (in millions)



Source: Statista

² <https://www.imf.org/en/Publications/WEO/Issues/2024/01/30/world-economic-outlook-update-january-2024#:~:text=Global%20growth%20is%20projected%20at,and%20developing%20economies%2C%20as%20well>

³ <https://www.statista.com/topics/1764/global-pharmaceutical-industry/#topicOverview>

⁴ <https://www.iqvia.com/insights/the-iqvia-institute/reports-and-publications/reports/the-global-use-of-medicines-2024-outlook-to-2028>

This demographic shift presents major challenges for health and social systems worldwide⁴ (Figure 2).

▪ Pharma Resilience and Growth

The COVID-19 pandemic highlighted the indispensable role of the pharmaceutical industry, particularly when it collaborates effectively with other health care sectors. The industry displayed resilience during the pandemic and accompanying economic challenges, adapting by rethinking traditional processes and innovating in areas like clinical trials. Positive revenue projections suggest the global pharmaceutical market could surpass \$2 trillion within the next five years, underscoring its growing importance in the global economy⁵.

Competitors analysis

▪ Prescription drug market

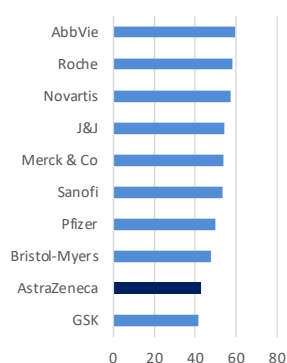
In the prescription drug market, Johnson & Johnson leads the global pharmaceutical sector, generating approximately \$85 billion in revenue in 2023 from its headquarters in New Brunswick, New Jersey. Other significant U.S.-based companies include Pfizer, Merck & Co., and AbbVie (Figure 3). The United States remains the largest pharmaceutical market globally, while China has emerged as a major player. Despite robust growth in some emerging markets, North America and Europe are projected to remain at the forefront of the industry in the coming years.⁶

▪ The Over-The-Counter drug market

The Over-The-Counter (OTC) Drugs Market is projected to grow from \$137.39 billion in 2024 to \$163.10 billion by 2029 at a CAGR of 3.49%. This growth is driven by the high cost of prescription drugs, which encourages self-medication with OTC alternatives, as evidenced by rising prescription drug expenditures and studies highlighting widespread OTC usage, such as 85.4% in Southwestern Nigeria. Increasing product innovation and regulatory approvals also support the market, with examples like Perrigo's FDA-approved Nasonex 24HR Allergy and the Arnicare arthritis cream. However, challenges such as high-end manufacturing costs and complex regulatory requirements may hinder growth during this period⁷ (Figure 4).

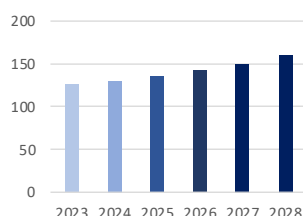
▪ Peers Overview

Figure 3: Projected top 10 pharma companies based on global prescription drug sales in 2026 (in billion U.S. dollars)



Source: Statista

Figure 4: Over the counter (OTC) drugs market size 2023 to 2028 (in billion U.S. dollars)



Source: Statista

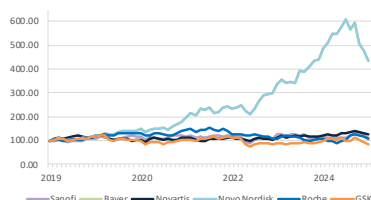
⁵ <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>

⁶ <https://assets.kpmg.com/content/dam/kpmg/tr/pdf/2023/12/Health-and-Pharmaceuticals-Sectoral-Overview.pdf>

⁷ <https://www.statista.com/topics/1764/global-pharmaceutical-industry/#topicOverview>

⁸ <https://www.mordorintelligence.com/industry-reports/global-over-the-counter-otc-drugs-market-industry>

Figure 5: Peers rebased stock performance 2019 to 2024



Source: Refinitiv, 2024

Novartis is a Switzerland-based pharmaceutical leader that operates in two key segments: Sandoz and Innovative Medicines. The Sandoz division focuses on generics and biosimilars, producing affordable versions of off-patent medicines, while the Innovative Medicines segment drives the company's research and development in cutting-edge therapies. Novartis has a strong pipeline in oncology, neuroscience, and cardiology, and its strategic emphasis on advanced cell and gene therapies is reshaping treatment possibilities. Leveraging digital innovation and data analytics, Novartis is also investing in precision medicine, enabling personalized healthcare solutions for patients worldwide.

Novo Nordisk, headquartered in Denmark, is a global leader in diabetes care and the world's largest insulin producer. Beyond its dominant position in diabetes management, the company is increasingly focusing on obesity treatments and therapies for other chronic diseases such as hemophilia and growth disorders. Novo Nordisk's commitment to innovation is evident in its development of cutting-edge GLP-1 receptor agonists for diabetes and weight management. The company's sustainable business model also focuses on reducing environmental impact and improving access to essential medicines in underserved regions.

Roche, based in Switzerland, is a pioneer in biotechnology, specializing in innovative treatments in oncology, immunology, infectious diseases, ophthalmology, and central nervous system disorders. Its strength lies in combining pharmaceuticals with diagnostics, giving it a unique edge in personalized healthcare. Roche's diagnostics division is a global leader in vitro and tissue-based cancer diagnostics, enabling early and precise disease detection. The company has a strong reputation for developing targeted cancer therapies and precision medicines, and it occupies a leading position in diabetes management, offering integrated solutions for patients around the world.

GSK (GlaxoSmithKline) is a UK-based global biopharmaceutical company specializing in vaccines and specialty medicines. With a strong presence in infectious diseases, respiratory health, and oncology, GSK focuses on advancing science and leveraging innovative technologies to address unmet medical needs. The company's vaccine portfolio is one of the most extensive in the world, including groundbreaking vaccines for diseases like shingles and malaria. GSK's emphasis on R&D is reflected in its investments in cutting-edge fields such as immunology and genetic therapies, with the goal of improving public health and advancing global healthcare outcomes.

Sanofi, headquartered in France, is a leading healthcare company dedicated to transforming medicine. Its core areas include vaccines, immunology, rare diseases, and diabetes, with a growing presence in oncology and gene therapy.

Sanofi's innovations are driven by a robust R&D pipeline that focuses on addressing complex medical challenges. The company also offers consumer healthcare products, emphasizing accessible and affordable solutions. Sanofi's strategic initiatives prioritize patient-centric approaches, sustainability, and digital healthcare innovation, ensuring that its therapies reach diverse global populations and improve quality of life.

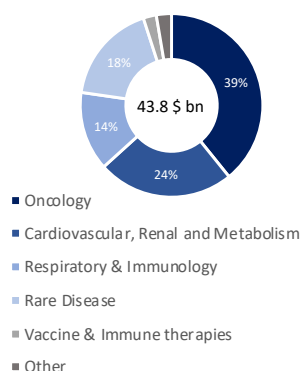
Bayer is a German multinational company renowned for its expertise in life sciences, spanning pharmaceuticals, crop science, and consumer health. In healthcare, Bayer focuses on cardiology, oncology, women's health, and rare diseases, with an increasing investment in cell and gene therapies. The company's crop science division addresses global food security challenges by developing innovative agricultural solutions. Known for its commitment to sustainability, Bayer integrates environmental and social governance principles into its operations, aiming to improve health and nutrition for a growing global population while reducing its ecological footprint.

For more details about the peers selection, please refer to Figure 5 and Appendix 1.

Business Strategy

AstraZeneca's strategy centers on four key areas: Oncology, Biopharmaceuticals, Vaccines & Immune Therapies, and Rare Diseases, supported by a portfolio spanning primary and specialty care, rare disease coverage, and a balanced global presence. To achieve its goals, the company focuses on three main initiatives: Firstly, Science and Innovation which includes leveraging global R&D centers, AI, and machine learning to advance medicine development and unlock innovation potential. Second, Growth and Treatment Area Leadership, which includes driving sustained growth by seizing regional and market opportunities, exploring business development prospects, and enhancing the patient experience through digital solutions. Lastly, People and Sustainability, which incorporates fostering employee engagement, promoting digital transformation, and addressing climate-related health and biodiversity challenges. Under its 2030 Bold Ambition, AstraZeneca aims to lead in science, excel in its disease areas, and transform patient outcomes. By 2030, the company plans to launch at least 15 new medicines, achieve industry-leading growth, and become carbon negative, focusing on accelerating strategic priorities and preparing for future opportunities (Figure 6).

Figure 6: AstraZeneca's Therapeutic Areas % of Total Revenue



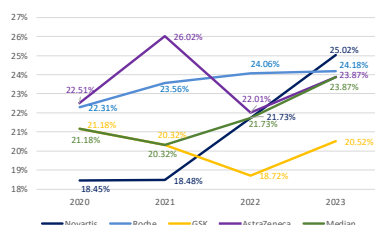
Source: AstraZeneca Annual Report 2023

Research & Development

Driving innovation and improving productivity in research and development are essential for long-term growth in the pharmaceutical industry. AstraZeneca is dedicated to enhancing R&D effectiveness by leveraging advanced clinical trials and integrating artificial intelligence and digital tools. This approach aims to accelerate development timelines and foster a competitive edge in innovation. The company is also tackling modern challenges by adopting cutting-edge manufacturing technologies and establishing smart factories to boost R&D output.

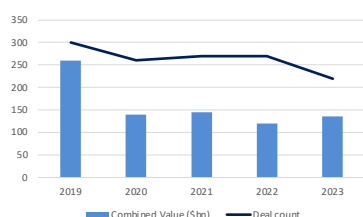
To support its digital transformation, AstraZeneca is strengthening its technological capabilities by recruiting external specialists in AI and data science, acknowledging a shortfall in internal expertise in these fields. This strategic shift is expected to increase future costs, including higher expenses for hiring skilled professionals and significant investments in advanced manufacturing and smart factory initiatives.

Figure 7: Peers R&D Margins in %



Source: Peers Annual Reports

Figure 8: Biopharma Annual Announced M&A Deals



Source: Statista

Although AstraZeneca's R&D spending as a percentage of revenue decreased from 26.85% in 2018 to 23.87% in 2023, the company's margin equals industry median (Figure 7).

Mergers & Acquisitions

AstraZeneca's acquisition of Alexion, finalized on July 21, 2021, for \$39 billion, was one of the largest life sciences deals of the last decade. This strategic move strengthened AstraZeneca's position in immunology and rare diseases, driving double-digit revenue growth and improving profitability. By integrating Alexion's expertise and product portfolio in these areas, AstraZeneca successfully expanded its market reach. However, the market initially reacted unfavorably, with AstraZeneca's share price falling by 7.8% after the announcement, largely due to concerns about competition facing Alexion's leading drug, Soliris.

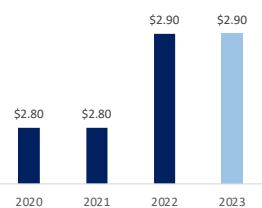
Despite this initial reaction, AstraZeneca continued its strategic mergers and acquisitions between 2021 and 2023, advancing its pipeline and market leadership (Figure 8). The company acquired CinCor Pharma, a clinical-stage company focused on treatments for resistant hypertension and chronic kidney disease (CKD), in a deal valued at up to \$1.8 billion, which included \$26 per share upfront and an additional \$10 per share contingent on regulatory milestones. This acquisition significantly bolstered AstraZeneca's cardiorenal portfolio. Similarly, in November 2022, AstraZeneca completed its acquisition of Neogene Therapeutics, a clinical-stage company specializing in next-generation T-cell receptor therapies for solid tumors. The transaction involved an initial payment of \$200 million and up to \$120 million in contingent milestone-based payments. Further expanding its oncology pipeline, AstraZeneca acquired

TeneoTwo, along with its Phase I CD19/CD3 T-cell engager therapy, TNB-486, targeting relapsed and refractory B-cell non-Hodgkin lymphoma. This deal included a \$100 million upfront payment and additional milestone payments of up to \$1.16 billion.

AstraZeneca also entered into key licensing agreements to enhance its portfolio. Alexion secured a worldwide licensing agreement with Neurimmune AG for NI006, a monoclonal antibody in Phase Ib development for transthyretin amyloid cardiomyopathy (ATTR-CM). Neurimmune received \$30 million upfront, with potential milestone payments of up to \$730 million and royalties. Additionally, AstraZeneca licensed pre-clinical monoclonal antibodies from RQ Biotechnology, strengthening its Vaccines & Immune Therapies pipeline against SARS-CoV-2. AstraZeneca further advanced its innovation efforts through a collaboration with gene sequencing company Illumina, leveraging their expertise in genomic analysis to accelerate drug target discovery.

The company continued to make significant developments in 2023. In November, AstraZeneca launched Evinova, a global health tech business designed to support clinical trial design, execution, and monitoring for pharmaceutical companies and CROs. In December, AstraZeneca acquired RSV vaccine developer Icosavax for \$1.1 billion, enhancing its vaccine portfolio. The same month, the company completed the acquisition of Gracell Biotechnologies, a developer of cell therapies for cancer and autoimmune diseases, in a deal valued at up to \$1.2 billion.

Figure 9: AstraZeneca's Dividend per Share



Source: Annual report 2023

Figure 20: The Number of Pipeline Projects in Oncology in 2023

Rank	Company	#
1	AstraZeneca	108
2	Roche Holding AG	66
3	Novartis AG	40
4	GSK PLC	23
5	Sanofi SA	13
6	Bayer AG	13

Source: Annual reports 2023

Figure 10: The Number of Pipeline Projects in CVRM in 2023

Rank	Company	#
1	Novo Nordisk	31
2	AstraZeneca	23
3	Novartis AG	13
4	Bayer AG	10
5	Roche Holding AG	5

Source: Annual reports 2023

Dividend Policy

Reflecting the company's financial performance, the Board announced a second interim dividend of \$1.97 per share in 2023, bringing the total dividend for the full year to \$2.90. This aligns with the Board's progressive dividend policy, which aims to maintain or increase the payout annually (Figure 9).

Therapeutical Areas

AstraZeneca's pipeline focuses on Oncology, Biopharmaceuticals (Respiratory & Immunology, Cardiovascular, Renal & Metabolism), Vaccines & Immune Therapies (V&I), and Rare Diseases.

■ Oncology

AstraZeneca is advancing cancer care with 10 major market approvals across six medicines, including Imfinzi, Enhertu, and the new Truqap. Positive Phase III trial results were achieved for multiple tumor types, including groundbreaking results for datopotamab deruxtecan (Dato-DXd) in lung and breast cancers (Figure 20).

Figure 11: The Number of Pipeline Projects in R&I in 2023

Rank	Company	#
1	Sanofi SA	38
2	AstraZeneca	30
3	Novartis AG	26
4	GSK PLC	20
5	Roche Holding AG	19

Source: Annual reports 2023

Figure 12: The Number of Pipeline Projects in V&I in 2023

Rank	Company	#
1	GSK PLC	41
2	Sanofi SA	12
3	AstraZeneca	4

Source: Annual reports 2023

Figure 13: The Number of Pipeline Projects in Rare Diseases in 2023

Rank	Company	#
1	AstraZeneca	19
2	Sanofi SA	7
3	Novo Nordisk	7
4	Bayer AG	6

Source: Annual reports 2023

▪ Cardiovascular, Renal & Metabolism (CVRM)

Focused on addressing cardiovascular, renal, and metabolic diseases, the CVRM segment expanded Forxiga's label to include heart failure and cardiovascular death. Acquisitions like CinCor and agreements with Eccogene have strengthened the cardiorenal pipeline, while Phase III trials for Eplontersen showed promise for hereditary amyloid polyneuropathy (Figure 10).

▪ Respiratory & Immunology (R&I)

R&I emphasizes treatments for asthma, chronic obstructive pulmonary disease, and immunologic diseases, with key drugs like Breztri, Fasenra, Tezspire, and Saphnelo now representing 50% of the portfolio. Fasenra achieved success in a Phase III trial for eosinophilic granulomatosis with polyangiitis (EGPA). Collaborations and acquisitions, including Quell Therapeutics and Gracell Biotechnologies, aim to expand the immunology portfolio (Figure 11).

▪ Vaccines & Immune Therapies (V&I)

The V&I division focuses on vaccines and immunotherapies, with approvals like Beyfortus for RSV prevention in infants and progress on FluMist Quadrivalent. The pipeline has been strengthened by the proposed acquisition of Icosavax for RSV and hMPV combination vaccines, alongside emergency authorization for sipavibart, a COVID-19 antibody therapy (Figure 12).

▪ Rare Diseases

AstraZeneca is advancing innovative therapies for rare diseases, with efforts in complement and non-complement mediated conditions. Strategic collaborations, including acquiring Pfizer's preclinical gene therapy portfolio and leveraging AI, support next-generation drug discovery and genomic medicine (Figure 13).

Forecasts & Key Value Driver

▪ Revenue Forecast Overview

To create the most precise projections with a high level of detail, we segmented AstraZeneca's revenues by region and its business units. This approach allows us to accurately reflect specific trends and the company's strategy across various therapeutic areas. For revenue forecasting, we broke down the revenue streams for each product by geographic region, considering differing patent expiration dates across the US, EU, Emerging Markets, and the Rest of the World. Furthermore, we examined the revenue generated by each product within each business unit. To create accurate projections for each product, we utilized a comprehensive approach that incorporated a range of critical data sources.

Epidemiology data served as a foundation, providing insights into disease prevalence and patient populations across different regions. Patent expiration data was also integral, enabling us to anticipate the timing and impact of generic competition on individual products. Additionally, we drew from various supplementary sources, such as market trends, therapeutic advancements, and regional healthcare dynamics, to enhance the reliability of our projections. Finally, we factored in the impact of inflation by applying the inflation forecast denominated in USD. Since all projections are expressed in USD, we assumed that future currency exchange rate fluctuations would offset any potential appreciation or depreciation of other currencies.

▪ Patent and Pricing Strategies

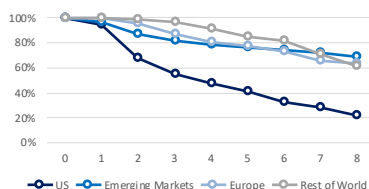
To effectively address the impact of patent expirations on AstraZeneca's revenues, we conducted a thorough analysis, integrating detailed information on patent expiry dates for each medicine across various geographical regions. This data was sourced directly from AstraZeneca's official website⁸, which provides region-specific information on the timing of generic entries for each product.

To quantify the financial impact of these expirations, we leveraged insights from the scholarly article "Life after Patent: Drug Price Dynamics and Cost-Effectiveness Analysis."⁹ This study offers an in-depth examination of how drug prices evolve post-patent expiry across eight key markets: the United States, the United Kingdom, Canada, Australia, Japan, France, Germany, and Switzerland. It also evaluates the implications of these price changes on cost-effectiveness assessments, providing a critical framework for understanding market behavior once generics are introduced. By applying the price dynamics and cost-effectiveness findings from this study to AstraZeneca's portfolio, we were able to calculate the potential revenue impact for each product, adjusted for regional variations in patent expiry and market conditions. This comprehensive approach provided us with a robust and nuanced perspective on the interplay between patent expirations, the competitive landscape introduced by generics, and the subsequent influence on AstraZeneca's product revenues globally (Figure 14).

▪ Epidemiology Data

To gain a deeper understanding of the number of patients treated with AstraZeneca's products, we utilized data from the company's official website¹⁰.

Figure 14: Annual Drug Price Estimates with Respect to the Previous to Patent Expiration Protection



Source: Life after patent: Drug price dynamics and cost-effectiveness analysis

⁹ https://www.astrazeneca.com/content/dam/az/Investor_Relations/annual-report-2023/pdf/AstraZeneca_Patent_Expiries_of_Key_Marketed_Products_2023.pdf

¹⁰ https://www.researchgate.net/publication/371529323_Life_after_patent_Drug_price_dynamics_and_cost-effectiveness_analysis

¹¹ https://www.astrazeneca.com/content/dam/az/Investor_Relations/Epidemiology-data-2024.xlsx

This dataset provided detailed information across all therapeutic areas, including a breakdown by specific diseases.

We further enriched this analysis by integrating epidemiology data, which allowed us to allocate patient populations to specific products. This approach enabled us to estimate the number of patients receiving particular treatments in each geographical region, offering a comprehensive view of treatment patterns and regional variations. By combining these data sources, we ensured accurate and actionable insights for product-specific and region-specific assessments.

▪ New pipeline projection

To estimate the future impact of new drug launches and the introduction of generics, we conducted a detailed analysis based on the company's current pipeline¹¹. This included incorporating AstraZeneca's stated objective of launching 20 new medicines by 2030 into our projections¹². To ensure accuracy, we adjusted our forecasts to align with the company's strategic goals and pipeline advancements.

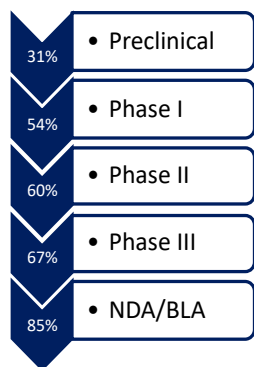
We also considered the probability of success for each therapeutic area, using success rates tailored to the stage of development for each product. These probabilities, as illustrated in the accompanying Figure 20, provided a foundation for assessing the likelihood of each product's successful commercialization.

To quantify the potential revenue impact, we based our calculations on AstraZeneca's target, which anticipates that these new medicines could collectively generate more than \$5 billion in peak-year revenue¹³. To account for varying levels of success, we applied three distinct scenarios, with assumed launch success rates of 14%, 25%, and 42%. This multi-scenario approach allowed us to capture a range of possible outcomes and create a comprehensive assessment of the revenue potential associated with the company's ambitious pipeline (Figure 15).

▪ Oncology Revenue Projection

To forecast revenues for AstraZeneca's Oncology unit, we began by analyzing the growth trajectory of the global oncology market, focusing on the increasing number of cancer patients. Recognizing oncology as the world's largest pharmaceutical segment by sales¹⁴, we identified the rising prevalence of cancer across various regions as a key driver of medicine sales. Yearly growth rates for

Figure 15: Probabilities of Success for Each Stage of Clinical Trial



Source: Deloitte reports

Figure 16: Oncology Revenues Forecasted



Source: Analysts Estimations, 2024

¹² <https://www.astrazeneca.com/our-therapy-areas/pipeline.html>

¹³ <https://www.astrazeneca.com/media-centre/press-releases/2024/astrazeneca-to-deliver-80bn-revenue-by-2030.html#:~:text=Today%20AstraZeneca%20revealed%20its%20bold,from%20%2445.8%20billion%20in%202023.>

¹⁴ <https://www.fiercepharma.com/pharma/astrazeneca-fast-track-growth-sets-target-revenue-80b-2030>

¹⁵ <https://www.statista.com/statistics/281951/top-therapy-classes-in-developed-pharmaceutical-markets-by-spending/>

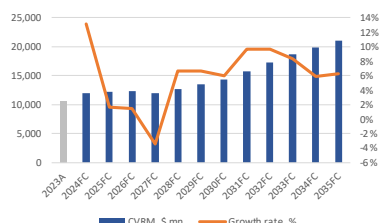
cancer patients in the US¹⁵, EU, Emerging Markets, and Rest of World¹⁶ were derived from forecasts provided by Statista¹⁷, offering a regional breakdown to support our projections.

Oncology is projected to grow at a CAGR of 6.42% between 2024 and 2035, remaining a key revenue driver for AstraZeneca. This growth is expected to be propelled by three blockbuster drugs—Tagrisso, Imfinzi, and Calquence. Tagrisso, the company's top-selling product, generated \$5.8 billion in sales in 2023, ranking sixth among the highest-grossing cancer drugs globally that year¹⁸. Imfinzi demonstrated outstanding commercial performance, with sales surging by 52%, from \$2.8 billion in 2022 to \$4.2 billion in 2023. Supported by market approvals in more than 86 countries, this success is driven by the rapid and widespread adoption of oncology medicines, further solidifying its position in the market (Figure 16).

■ CVRM Revenue Projection

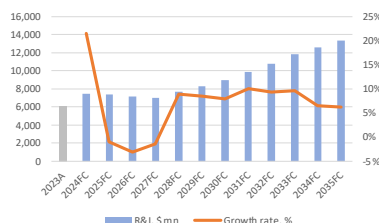
To forecast revenues for AstraZeneca's CVRM unit, we began by analyzing diabetes, which accounts for 75% of the unit's revenues. CVRM is projected to grow at a CAGR of 4.8% between 2024 and 2035 (Figure 17).

Figure 17: CVRM Revenues Forecasted



Source: Analysts Estimations, 2024

Figure 18: R&I Revenues Forecasted



Source: Analysts Estimations, 2024

The majority of revenues in this segment come from blockbuster drugs Farxiga and Brilinta, both of which face U.S. patent expirations in 2025, where the bulk of sales are concentrated. While revenue from this segment has declined in recent years due to the entry of generics and new competing medicines, it is expected to stabilize and grow again starting in 2028. Farxiga, the world's leading SGLT2 inhibitor by prescription volume, saw significant growth of 36% from 2022 to 2023. In August, it received a first-line recommendation in the 2023 European Society of Cardiology Treatment Guidelines for heart failure across all ejection fractions. Meanwhile, Brilinta, which is approved in over 115 countries for preventing atherothrombotic events in adult patients with acute coronary syndrome (ACS), experienced a 3% decline in sales over the same period.

■ R&I Revenue Projection

The R&I segment is projected to grow at a CAGR of 5.02% between 2024 and 2035, despite its current blockbusters either having expired (Symbicort) or nearing expiration (Fasenra). In 2023, Symbicort and Fasenra generated revenues of \$2.4 billion and \$1.6 billion, respectively. Stronger growth is

¹⁶ <https://www.statista.com/statistics/1031316/new-cancer-cases-forecast-worldwide/>

¹⁷ <https://www.biospace.com/laxman-dige-precedenceresearch-com#:~:text=billion%20in%202024-,The%20global%20oncology%20market%20size%20was%20valued%20at%20USD%20222.36,drives%20significant%20growth%20in%20healthcare.>

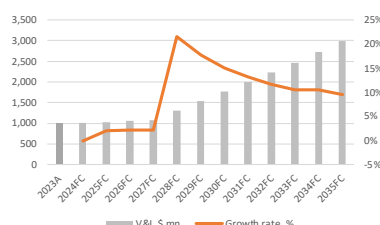
¹⁸ <https://statista.com/outlook/hmo/pharmaceuticals/oncology-drugs/europe#revenue>

¹⁹ <https://www.statista.com/statistics/288538/top-cancer-drugs-based-on-revenue/>

anticipated between 2028 and 2031, driven by the development of potential new therapies and blockbuster candidates, including Tezepelumab and Bevespi (Figure 18).

▪ V&I Revenue Projection

Figure 19: Vaccine and Immunology Therapies Revenues Forecasted



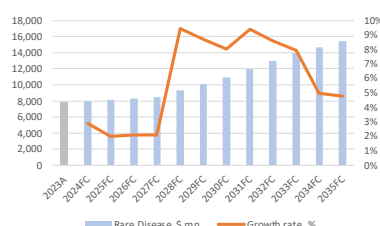
Source: Analysts Estimations, 2024

The V&I segment faced a substantial decline in 2023, with revenues plummeting by 79% due to a steep drop in Vaxzevria sales and waning demand for COVID-19 antibodies as the pandemic subsided. However, the segment is projected to recover and grow at a CAGR of 9.44% between 2024 and 2035, driven by initiatives to develop next-generation vaccines capable of generating robust and lasting immune responses.

In January 2024, AstraZeneca entered into a collaboration with the U.S.-based biotechnology company Omniore to advance vaccine research for serious bacterial diseases. Through this agreement, AstraZeneca gained exclusive rights to Omniore's proprietary bioconjugation platform for up to three years, further reinforcing its commitment to innovation in vaccine development (Figure 19).

▪ Rare Diseases Revenue Projection

Figure 20: Rare Disease Revenues Forecasted



Source: Analysts Estimations, 2024

The Rare Diseases segment is projected to grow at a CAGR of 5.62% between 2024 and 2035. This growth aligns with the broader rare disease market, which is expected to expand at a CAGR of 12% from 2021 to 2026. Ultomiris, the successor to Soliris, is anticipated to become the segment's top-selling product by 2027.

AstraZeneca's 2021 acquisition of Alexion underscores its increased strategic focus on rare diseases, positioning the segment for accelerated growth. New product contributions are expected to outpace those in CVRM and Respiratory & Immunology, with the segment's impact projected to reach 9% by 2031. Additionally, the Rare Diseases unit benefits from an extensive global presence, with product approvals in more than 70 countries, and is poised for further expansion driven by innovative treatments (Figure 20).

▪ Other Revenue Projection

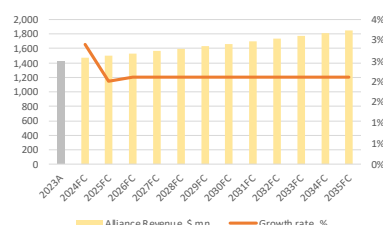
Figure 21: Other Revenues Forecasted



Source: Analysts Estimations, 2024

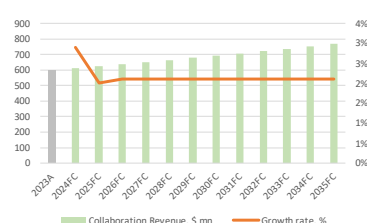
The Other Medicines segment is expected to grow at a CAGR of 7.14% between 2024 and 2035, driven by the anticipated launch of two new treatments - one for Alzheimer's disease currently in the first stage of development, and another for migraines in the second stage. While Nexium, a key drug for treating stomach disorders, lost its patent in 2014, AstraZeneca retains the European rights, allowing it to continue generating revenue from this product. The combination of new drug launches and sustained income from legacy products positions this segment for steady growth in the coming years (Figure 21).

Figure 22: Collaboration Revenues Forecasted



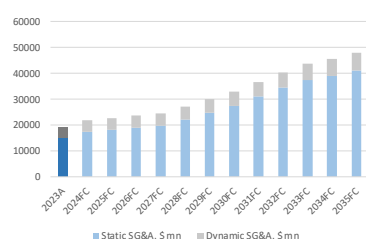
Source: Analysts Estimations, 2024

Figure 23: Alliance Revenues Forecasted



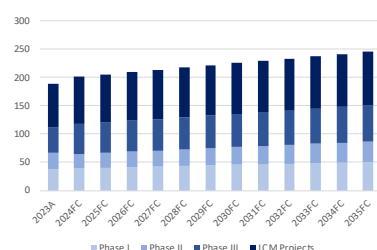
Source: Analysts Estimations, 2024

Figure 24: SG&A Forecasted



Source: Analysts Estimations, 2024

Figure 25: Projected Pipeline (number of projects)



Source: Analysts Estimations, 2024

Collaboration revenue Projection

Collaboration revenue is projected to grow at a CAGR of 1.92% between 2024 and 2035, primarily driven by COVID-19 license fees and Lynparza. In July 2017, AstraZeneca entered a partnership with MSD to co-develop and market Lynparza for various cancer treatments. The agreement includes up to \$8.5 billion in payments, comprising \$1.6 billion upfront, \$750 million for license options, and up to \$6.2 billion contingent on milestone achievements. AstraZeneca recognized \$1 billion as revenue in 2017, deferring the remainder, and records all Lynparza and Koselugo revenue while deducting MSD's share under costs (Figure 22).

Alliance revenue Projection

Alliance revenues are projected to grow at a CAGR of 1.92% between 2024 and 2035, driven by Enhertu and Tezspire. Enhertu achieved blockbuster status in 2023, contributing \$1,022 million to the \$1,428 million alliance revenue. AstraZeneca's partnership with Daiichi Sankyo for Enhertu and Amgen for Tezspire involves shared profits, royalties, and commercial responsibilities, with revenue and costs recognized based on regional agreements (Figure 23).

Cost of Goods Sold Projection

To forecast the Cost of Goods Sold, we conducted an in-depth analysis of historical data to determine the cost per patient. Using these insights, we combined the projected patient volumes with inflation-adjusted cost estimates for the U.S. market, ensuring a comprehensive projection of future COGS aligned with anticipated economic conditions.

SG&A Projection

To project SG&A expenses, we categorized them into static and dynamic components and utilized scenario analysis to determine their respective proportions. Static SG&A was forecasted as a percentage of revenue, implying a proportional increase in SG&A costs with higher revenue. Conversely, dynamic SG&A was modeled based on the number of patients, with per-patient SG&A costs adjusted for U.S. inflation, ensuring a nuanced and robust estimation (Figure 24).

Research and Development Costs Projection

To forecast R&D expenses, we conducted an extensive analysis of historical data, focusing on the number of projects within the pipeline and the proportional allocation of R&D spending across different stages of development. Historically, R&D expenditure has been distributed with approximately 60% allocated to Discovery and Early-Stage Development activities, while the remaining 40% has

been directed toward Late-Stage Development. Using these established proportions, we calculated the average cost per project for each development stage, factoring in historical trends and adjusting for anticipated inflation rates in the U.S. Additionally, we examined the growth trajectory of the pipeline over the last four years to estimate the future number of projects. Assuming that this growth trend remains consistent, we projected the pipeline to expand at a steady rate, which directly influences the overall R&D cost structure. The combination of increasing project numbers and inflation-adjusted per-project costs allowed us to derive a detailed projection of R&D expenditures. Based on these comprehensive assumptions and calculations, R&D costs are expected to grow at a compound annual growth rate (CAGR) of 5.57% during the forecast period from 2024 to 2035. This approach ensures that our projections reflect both the evolving scope of R&D activities and external economic factors, providing a robust and realistic outlook for future expenditure trends (Figure 25).

Scenario Analysis

Figure 26: Scenario Analysis of SG&A Proportion and Pipeline's Success Impact on EV

EV, \$ mn		Pipeline Scenario		
		Pessimistic	Neutral	Optimistic
SG&A Proportion Scenario	Pessimistic	139,330	227,211	384,915
	Neutral	148,994	245,539	418,601
	Optimistic	158,658	263,886	452,288

Source: Analysts Estimates, 2024

Figure 27: Scenario Analysis of Inflation in the US and Pipeline's Success Impact on EV

EV, \$ mn		Pipeline Scenario		
		Pessimistic	Neutral	Optimistic
Inflation in the US	Worst	156,927	262,136	450,445
	Base	158,658	245,539	452,288
	Best	160,360	265,569	454,100

Source: Analysts Estimates, 2024

For the scenario analysis, we identified four key variables that we believe have the greatest potential impact on the company's overall valuation. The first variable focuses on the pipeline scenario, where we applied three distinct probabilities of success for AstraZeneca's new portfolio. This allows us to assess potential outcomes under various conditions, including the possibility of the portfolio facing significant challenges. The second critical variable pertains to the proportion of Selling, General & Administrative (SG&A) costs, where one component is projected as a percentage of revenue, and the other is determined by the projected total number of patients and SG&A costs per patient. This dual approach ensures a more granular and flexible model (Figure 26).

The third variable addresses the growth rate of Research & Development (R&D) costs. Given the highly competitive nature of the pharmaceutical industry, with companies continually increasing R&D spending to maintain a market-leading position, we incorporated three different R&D cost growth scenarios to capture the uncertainty in future investment. Finally, the fourth variable considers inflation in the United States, as all financial statements are denominated in U.S. dollars. To account for the current global economic volatility, including geopolitical instability resulting from the war in Ukraine and the Middle East, we adapted our model to incorporate potential global shifts. This adjustment enhances the robustness and comprehensiveness of the analysis, providing a more nuanced view of potential future outcomes under varying economic conditions (Figure 27).

Sensitivity Analysis

A sensitivity analysis was conducted to evaluate how the Price Target (PT) responds to changes in the cost of capital (WACC), the long-term sustainable growth rate (g), and the robustness of the investment recommendation. For the base case, the WACC is set at 6.73%. A 20 basis point (bps) increase or decrease in WACC would result in a PT decrease or increase of approximately \$3.22–\$3.51 per share, assuming all other factors remain unchanged. Similarly, the long-term sustainable growth rate is set at 2.00% in the base case. A 20 bps increase or decrease in this rate would lead to a corresponding PT increase or decrease of about \$2.29–\$2.48 per share, with all other variables held constant (Appendix 2).

Risks

AstraZeneca encounters a variety of risks and uncertainties, with those most likely to significantly affect its strategic goals being identified as the primary risks (Figure 28).

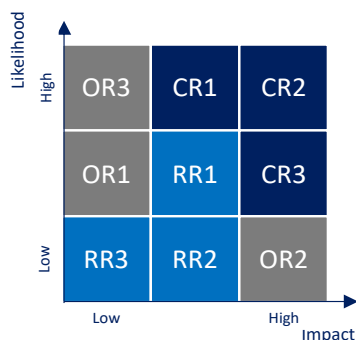
- Commercial Risks

Competitive Product Introductions (CR1) pose a risk to AstraZeneca's revenue streams as new competitive products can reduce sales of both current and pipeline offerings. To mitigate this, the company focuses on developing innovative new molecules to maintain its competitive edge. Similarly, **Generics Competition (CR2)** threatens AstraZeneca's sales when patents on key products expire, allowing generic alternatives to enter the market and causing significant declines in blockbuster drug sales. The company counters this risk by establishing and executing strategic defence plans to protect its key products. Additionally, **Geopolitical and Macroeconomic Volatility (CR3)** creates challenges for AstraZeneca, as operating in over 100 countries exposes the company to global political, social, and economic risks. Extended economic downturns or geopolitical instability, such as the ongoing situation in Ukraine, can negatively impact performance. To address these issues, AstraZeneca mitigates currency and market risks through hedging and strengthens local and regional partnerships to stabilize operations in volatile regions.

- Regulatory Risks

Pricing Pressure (RR1) presents a significant challenge for AstraZeneca, as global efforts to reduce healthcare spending often result in cost-cutting measures from payers, negatively impacting the company's revenues and profitability. To

Figure 28: Risk Matrix



Source: Analysts Estimations, 2024

address this, AstraZeneca focuses on key products while maintaining a diversified portfolio to balance pricing pressures. Similarly, **Intellectual Property Risks (RR2)** arise due to delays in regulatory approvals, which can hinder product commercialization, as well as challenges in defending intellectual property rights, potentially exposing the company to increased competition. AstraZeneca mitigates this risk by proactively partnering with regulatory bodies and advocacy groups to navigate regulatory changes while actively managing intellectual property rights, including through litigation. Furthermore, **Regulatory Non-compliance (RR3)** poses a threat, as failure to meet evolving local and international regulatory requirements could result in legal sanctions or reputational damage, limiting the company's ability to operate in certain markets. AstraZeneca counters this risk by maintaining a robust compliance framework, with dedicated teams focused on monitoring, auditing, and ensuring full adherence to regulatory standards.

- Operational Risks

Manufacturing Failures or Delays (OR1) present a risk for AstraZeneca, as drug manufacturing is a complex and resource-intensive process where failures or delays at any stage can disrupt operations and hinder future growth. To mitigate this, the company focuses on speeding up product development and enhancing research and development productivity. Similarly, **IT and Cybersecurity Failures (OR2)** pose significant threats, as disruptions to IT systems, including cyberattacks or data breaches, could harm AstraZeneca's reputation and materially impact its business operations. To address this risk, AstraZeneca has implemented a robust cybersecurity framework, disaster recovery plans, and regular employee training on data security and privacy. Additionally, **Supply Chain Disruptions (OR3)**, such as shortages of raw materials or transportation issues, can cause production delays or product shortages. AstraZeneca mitigates this by developing a flexible and diversified supply chain, ensuring continuity through multiple suppliers and alternative sourcing strategies.

