

FINANCIAL ANALYSIS

Accounting, Finance & Control - Group 1 - 2024/2025



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CONTEXT ANALYSIS

Industry Highlights

Overview

Novartis operates within the global pharmaceuticals industry, the healthcare sector involved in the research, development, manufacturing, and marketing of medicines and drugs. The development of pharmaceuticals is a complicated process to transform molecules into clinically proven advanced medicines. These are tightly controlled and developed for regulatory body approval following strict standards. This leads to a general trend of heavy R&D investment found in any company in the pharmaceutical industry. Figure 1 breaks down the estimated allocation of R&D investments inherent to pharmaceutical companies.

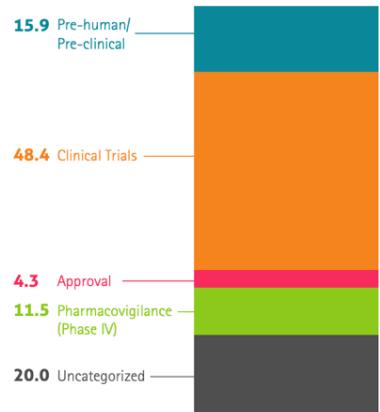


Figure 1. Allocation of R&D Investments by function

Market Size

The global pharmaceutical market size was estimated at US\$ 1,573.20 billion in 2023 and is projected to grow to US\$ 3,033.21 billion by 2034, rising at a compound annual growth rate (CAGR) of 6.15% from 2024 to 2034. The North American market remains the world's largest market with a 53.3% share, well ahead of Europe, China and Japan. The pharmaceutical industry is growing strongly due to the growing geriatric population, which requires continuous healthcare due to age-related health issues.

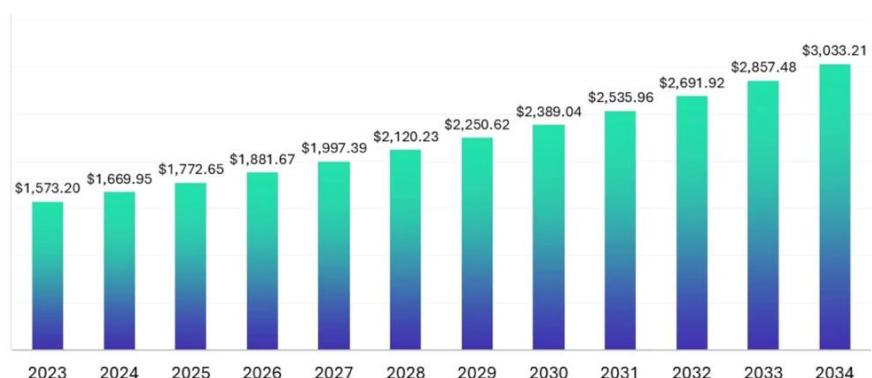


Figure 2. Pharmaceutical Market Revenue 2023 to 2034

Players

The following companies are currently the most valuable in the pharmaceutical industry. Novartis is ranked as the sixth largest by market cap.

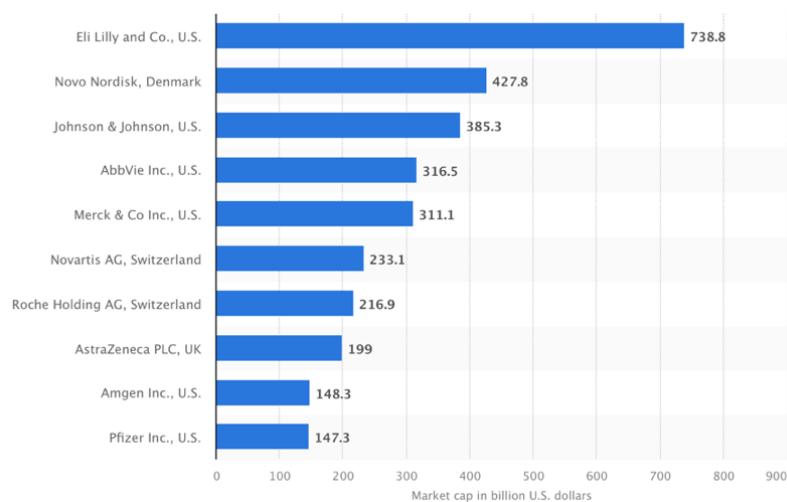


Figure 3. Top 10 biotech and pharmaceutical companies based on market cap 2024



Figure 4. Top pharmaceutical companies

Innovation Trends

Global market analysis identifies trends focusing on specialty medicine in niche markets. While R&D investment is still one of the industry's most relevant indicators, there is an increasing focus on R&D efficiency. Soon to get an edge in the most R&D competitive segments like Blood, Cancer, and Cardiovascular the top pharmaceutical companies will have to integrate new technologies like AI and foster collaborations as well as strategic M&A initiatives to gain the competitive edge to remain on top of the market evolutions and requirements.

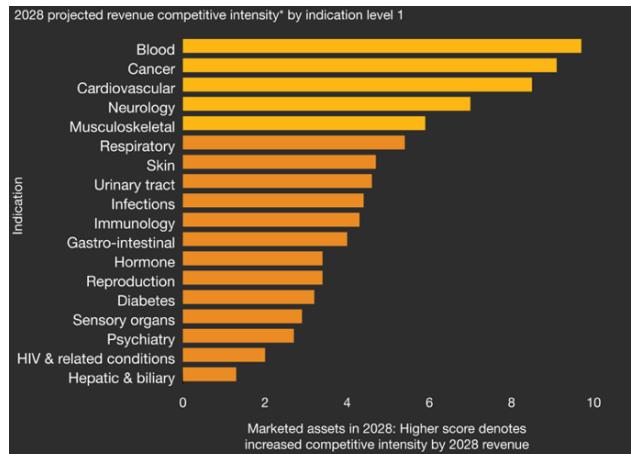


Figure 5. PWC Analysis - Marketed assets in 2028, Competitive intensity of revenue

Profitability Trends

Recently, many top pharmaceutical companies have been trying to transition away from the generic pharmaceutical products industry to innovative and branded products. This transition is triggered by the profit margins commanded by the branded pharmaceuticals segment. According to USC Schaeffer, branded pharmaceutical products can command the highest net margins amongst most products that are traded openly, meaning that companies can command very high revenues from relatively moderate expenses, making these products extremely attractive to pharmaceutical companies.

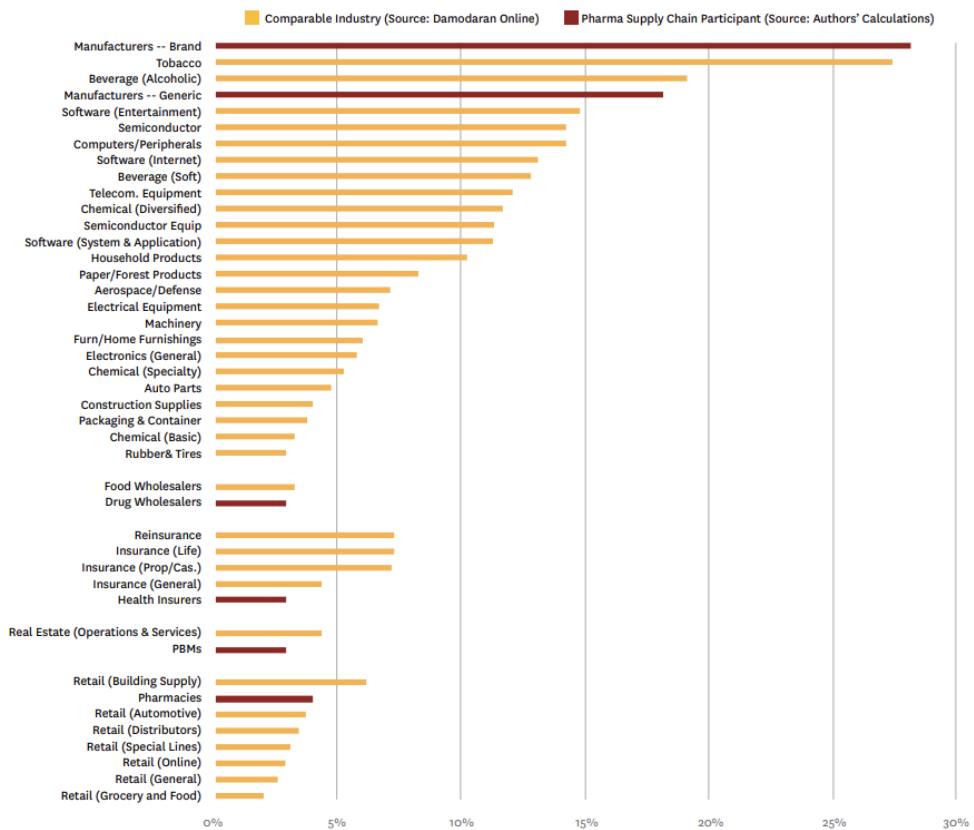
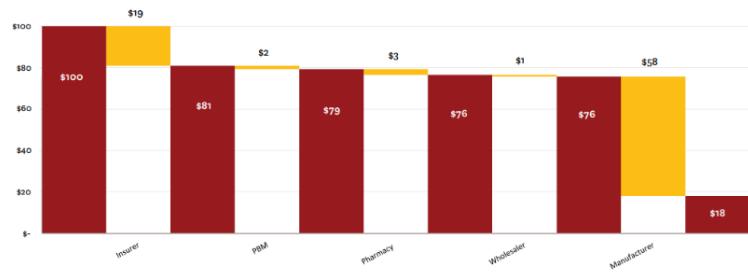
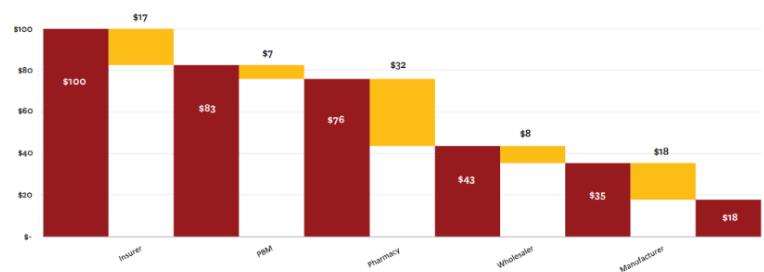


Figure 6. Average sector net margins for players in the pharmaceutical distribution system

Panel A: Expenditure on branded drugs



Panel B: Expenditure on generic drugs



■ Captured by Supply Chain Party ■ Passed Through Supply Chain

Figure 7. Flow of a hypothetical \$100 expenditure on drugs through the US retail distribution system

Porter's Five Forces Industry Analysis

COMPETITIVE FORCE	ANALYSIS	TRENDS IN THE INDUSTRY	THREAT LEVEL
INTERNAL RIVALRY	<ul style="list-style-type: none"> Competition to gain market share = many firms compete in the same pharmaceutical space to develop the best medicine first Mergers & Acquisitions = another form of growth in the industry, increases competition Price wars = on the generic level price wars become critical for profit 	<ul style="list-style-type: none"> Increased focus on specialty medicines Leveraging AI to develop better medicines more quickly 	HIGH
THREAT OF NEW ENTRANTS	<ul style="list-style-type: none"> High investment capital required = high barriers to entry Big regulatory hurdles = long and complicated approval process makes it difficult for new entrants Loyalty = known brands have strong followings, deterring new entrants 	<ul style="list-style-type: none"> Regulatory bodies are developing fast-track paths for approval AI-based innovations are starting to enter the market 	LOW
POWER OF BUYERS	<ul style="list-style-type: none"> Buyer concentration = small group of buyers (hospitals, pharmacies, governments) gives them more purchasing power to choose preferred medicine Alternatives = generic prescriptions equal lower cost medicine Health insurance = price-sensitive second-party which determines approved medicines for patients 	<ul style="list-style-type: none"> Rising availability and use of generic medicines give more power to buyers Budget constraints force more intense price negotiations 	MODERATE
POWER OF SUPPLIERS	<ul style="list-style-type: none"> Supplier concentration = rely on a limited number of approved suppliers for raw materials Manufacturer regulations = also reliant on manufacturers that can produce under specific regulated conditions 	<ul style="list-style-type: none"> Post-COVID companies have diversified their supply chain Companies focus on sustainable sources to meet regulation goals 	MODERATE
SUBSTITUTES	<ul style="list-style-type: none"> Generic drugs = increasing pushes to move to generics and expiring patents push down the cost of medicine Prevention = increases in health studies allow preventative medicine to assist in lowering need for traditional pharmaceutical care 	<ul style="list-style-type: none"> Generic drugs reduce profits Recent focus on public health prevention threatens traditional ways of bulk administration of medicine 	MODERATE

Table 1. Pharmaceutical Industry 5 Porter Force Analysis

Company Insights

Overview

Novartis is an innovative medicine company focused on reimagining medicine to improve and extend people's lives so that patients, healthcare professionals, and societies are empowered in the face of serious diseases. Its medicines reach more than 250 million people worldwide. Novartis was founded in 1996 from the merger of two Swiss companies, Ciba-Geigy and Sandoz, with roots dating back to the mid-1800s. This merger combined both companies' extensive expertise in pharmaceuticals, agrochemicals, and biotechnology.

Novartis's transition from a diversified healthcare company to a focused, innovative medicines business reflects a strategic response to evolving market dynamics, profitability trends, and the lifecycle of pharmaceutical products. Completed in 2023 with the spin-off of Sandoz, this transformation underscores Novartis's commitment to prioritizing high-margin branded pharmaceuticals over generics and legacy segments. The financial rationale for this shift lies in the substantial profitability disparities between branded and generic pharmaceuticals. According to the USC Schaeffer Center, branded drugs deliver significantly higher gross and net manufacturer margins than generics, which face intense pricing pressures and see a larger share of expenditure captured by intermediaries such as pharmacies and wholesalers. Additionally, as illustrated in the pharmaceutical lifecycle, profitability declines sharply during the generics phase due to heightened competition and price erosion. By concentrating on earlier lifecycle phases, Novartis aims to maximize revenue potential and mitigate risks associated with generic entry.

Furthermore, with a market size exceeding USD 40 billion but less than 10% of the market share, Novartis is positioned at **BBB** in most of its core markets. This reinforces the need to strengthen its presence in these markets. One of the critical differences between innovative and generic pharmaceuticals is the latter's lack of pricing power, resulting in significantly lower attainable operating margins. As demonstrated by the EBITDA margin¹ data in Table 3, innovative pharmaceuticals consistently yield higher profit margins across all rating categories, including BBB, where Novartis currently operates.



Figure 8. Novartis's Purpose, Vision and Strategy

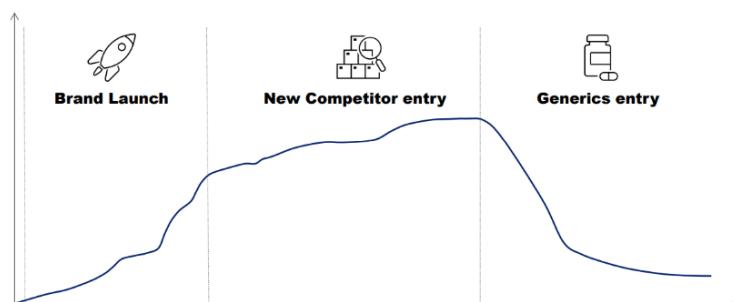


Figure 9. Evolution of sales in the Life Cycle of a Pharmaceutical Product

Market Share/ Market Size	Large (> USD 40 bn)	Medium (USD 20-40 bn)	Small (< USD 20 bn)
> 20%	AAA/AA	AA/A	BBB/BB
10-20%	AA/A	A/BBB	BB
< 10%	BBB	BB	B

Table 2. Market shares by rating category

EBITDA Margin %	AA and above	A	BBB	BB	B	CCC and below
Innovative Pharma	>35%	30-35%	25-30%	20-25%	10-20%	<10%
Generics	>25%	20-25%	15-20%	10-15%	5-10%	<5%

Table 3. Operating profitability by rating category

¹ An innovative pharmaceutical company's EBITDA margin is defined as the main profitability indicator for cash flow stability. Conversely, profitability for companies in the generic market segment is determined mostly by an ability to reach a critical volume of sales and/or by a presence in a specialty generic field.

company

FOOTPRINT



Figure 10. Novartis Footprint

Novartis's operations are anchored in three core pillars: people, science and technology, and fostering trust with society. The company places a strong emphasis on R&D, driving progress across 41 projects currently in Phase III. Novartis also demonstrates remarkable achievements in terms of its organizational scale, commitment to diversity, and the extensive number of patients positively impacted by its medicines globally.

Products and Services

The company has a clear focus on four core therapeutic areas — cardiovascular-renal-metabolic, immunology, neuroscience, and oncology — with multiple significant in-market and pipeline assets in each of these areas. In addition two established technology platforms (chemistry and biotherapeutics), three emerging platforms (gene & cell therapy, radioligand therapy and xRNA) are being prioritized for continued investment into new R&D capabilities and manufacturing scale.



Figure 11. Novartis core therapeutic areas

The accompanying tree-map illustrates Novartis' net sales composition, with *Entresto* and *Cosentyx* together accounting for nearly a quarter of total net sales, underscoring the importance of these high-performing brands. A cluster of key therapies such as *Promacta/Revolade*, *Kesimpta*, and *Kisqali* provide mid-tier contributions, while a substantial remaining portion of sales is spread across a diverse set of products.

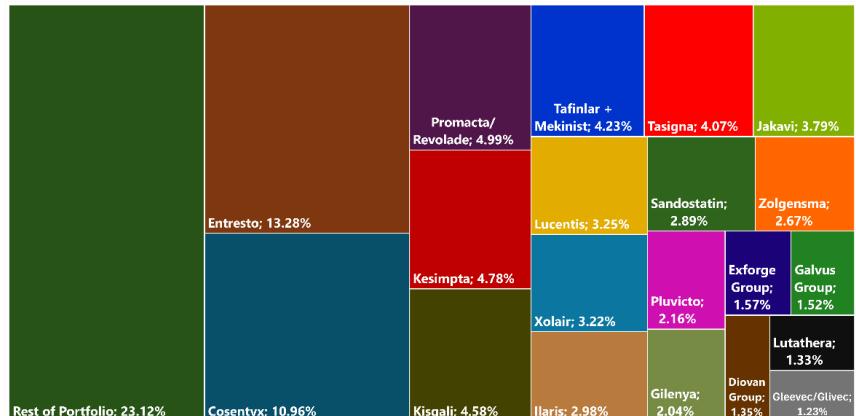


Figure 12. Composition of Novartis's 2023 net sales by its top 20 brands

Revenue and Growth

Novartis' 2023 net sales reflect a diverse portfolio, underscoring the company's robust market presence. Geographically, the Americas accounted for nearly half of total net sales. Therapeutically, Established Brands and oncology, each representing approximately 30% of sales, demonstrate leadership in oncology with strong demand for legacy products. The US was the largest single-country contributor at 39.5%, followed by Germany, China, and Japan.

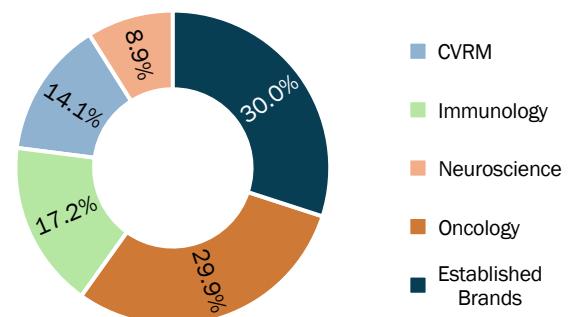


Figure 13. Composition of Novartis's 2023 net sales by therapeutic area

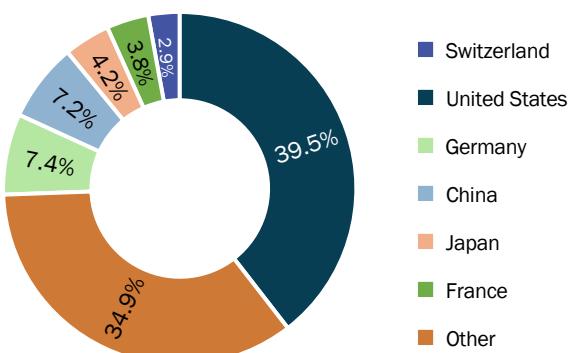


Figure 14. Composition of Novartis's 2023 net sales by operating region

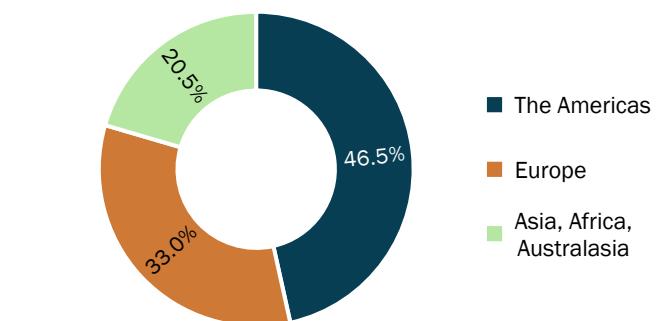


Figure 15. Composition of Novartis's 2023 net sales by single-country contributors

Business Model Canvas

The business model canvas analysis of Novartis is outlined below to visualize and map out the key components of the company.

Business Model Canvas - Novartis

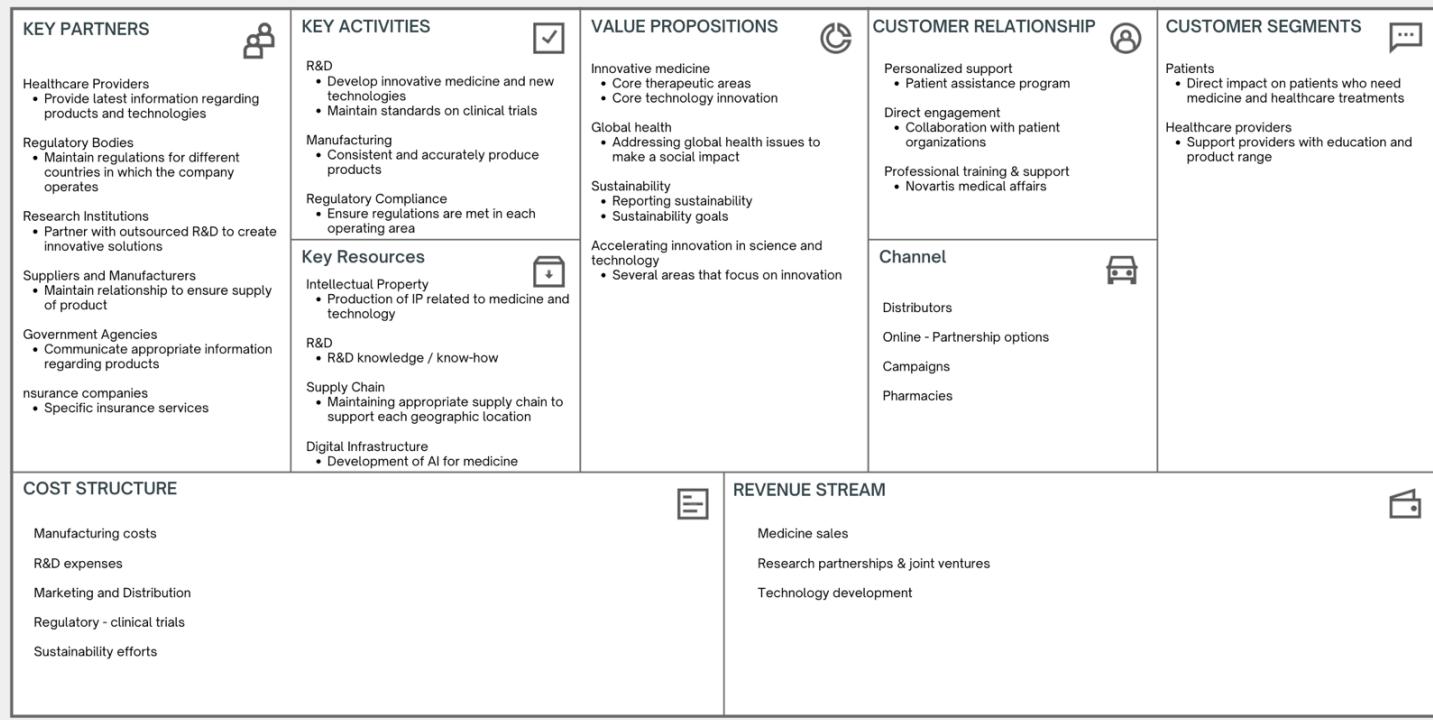


Figure 16. Novartis business model

SEGMENTAL ANALYSIS

Overview

Novartis's segmental performance reveals pivotal insights into its strategic priorities and market dynamics. By exploring trends across geographic regions, therapeutic areas, and product categories, we identify growth drivers and strategic imperatives that underscore Novartis's position as a leader in the evolving global healthcare landscape.

Novartis operates across the Americas, Europe, Africa, Asia, and Australasia. Over the analysis period, the Americas led in net sales and share percentage, followed by Europe. Within these regions, the U.S., Germany, China, and Japan—accounting for more than 5% of net sales—are identified as priority markets for Novartis.

The US has been identified as a priority market for Novartis due to its unparalleled size, growth potential, and competitiveness within the pharmaceutical sector. As the world's largest pharmaceutical market, the US accounts for around 40% of Novartis' net sales in 2023 and over half of global pharmaceutical sales. The US pharmaceutical market has grown at an annual rate of 11%, the highest among top global markets, outpacing the growth of any individual European country or other major economies. Novartis aims to become a top-five player in the US by 2027, emphasizing a "U.S.-first" strategy that includes enhancing clinical trial participation, local talent acquisition, and delivering high-value medicines tailored to the U.S. healthcare system.

Germany's robust healthcare infrastructure and status as Europe's largest economy make it a strategic market for Novartis. Novartis leads the market in Germany and seeks to maintain this leading position.

China represents a rapidly expanding market, supported by healthcare reforms and increasing demand for treatment areas that align with Novartis's focus. Novartis aspires to achieve a third position in China.

In Japan, Novartis continues to capitalize on the aging population and its demand for high-quality therapies. Although restrictive pricing policies remain challenging, Novartis aims to retain its third position in this critical market, focusing on tailored strategies and R&D investments to meet local healthcare needs.

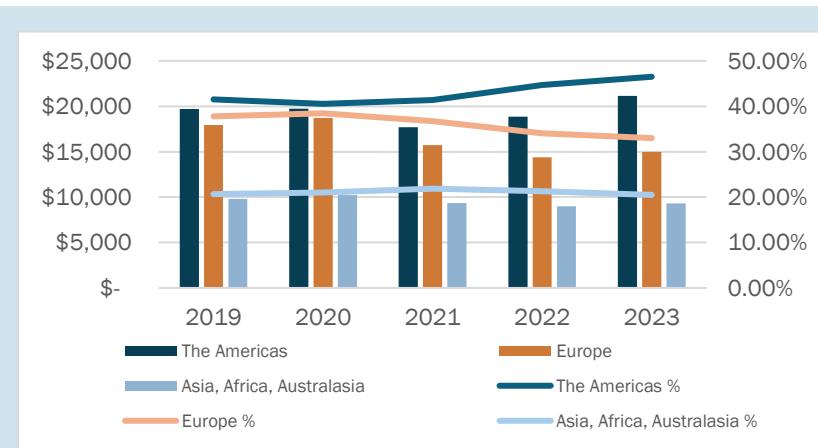


Figure 17. Novartis Regional Net Sales and Share Distribution (USD million)

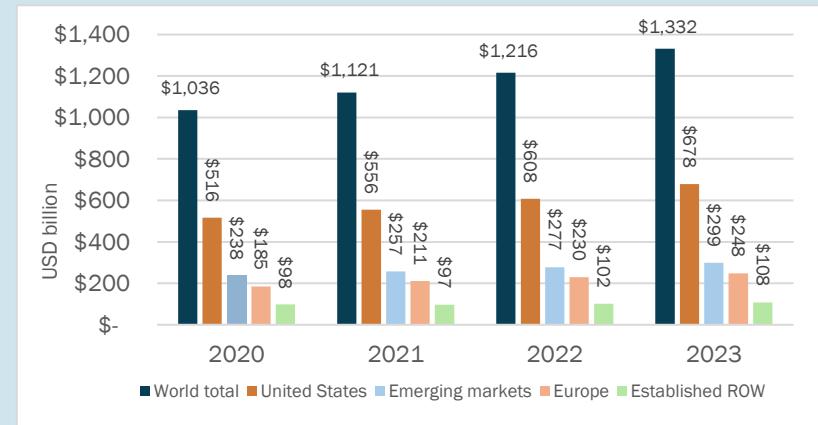


Figure 18. Global pharmaceutical sales from 2020 to 2023, by region

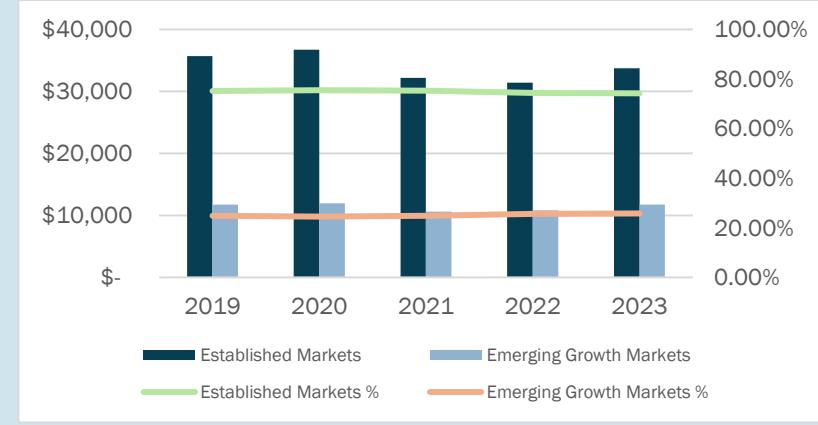


Figure 19. Novartis Net Sales and Share Distribution by Market Type (USD million)

The market's attractiveness in these regions is paralleled by its competitiveness. The US, for example, exhibits the most fragmented market share distribution globally, as evidenced by its Herfindahl-Hirschman Index² compared to other regions. This competitive intensity underscores the necessity for pharmaceutical companies to heavily invest in R&D and innovation pipelines to maintain leadership. By leveraging innovation-driven portfolios and addressing unmet medical needs, Novartis ensures its continued success across these highly challenging markets.

Furthermore, Novartis's segmentation of its markets into Established and Emerging Growth Markets underscores a strategic balance between stability and expansion. Established Markets³ account for approximately 75% of net sales. These mature markets benefit from robust healthcare systems, high spending, and demand for innovative therapies. Emerging Growth Markets, comprising all regions outside the established economies, also maintained around 25% share of net sales, reflecting healthcare access and addressing unmet needs in economies such as China, India, and Brazil.

In conclusion, Novartis's prioritization of the US, Germany, Japan, and China is driven by a combination of market size, economic significance, healthcare infrastructure, and strategic alignment with the company's priorities. These markets offer unmatched opportunities for growth and innovation while posing unique challenges that Novartis addresses through targeted R&D investments, tailored strategies, and leveraging global expertise.

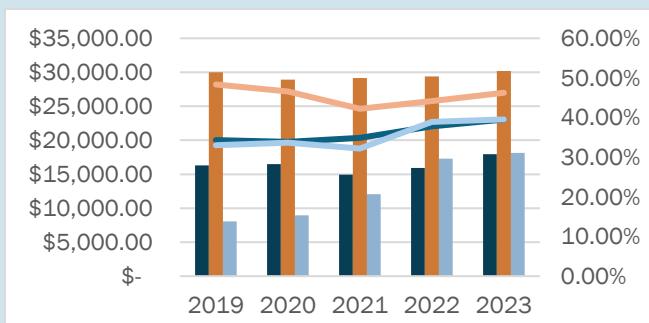


Figure 20. United States net sales (USD million)

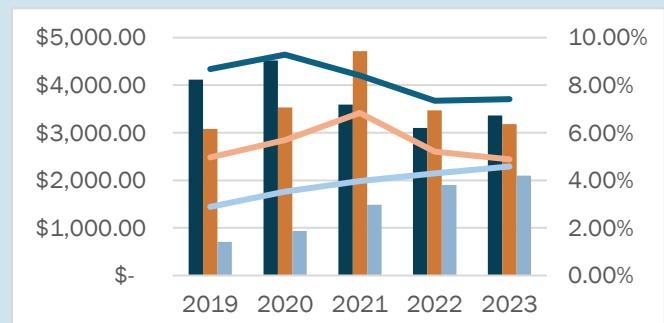


Figure 21. Germany net sales (USD million)

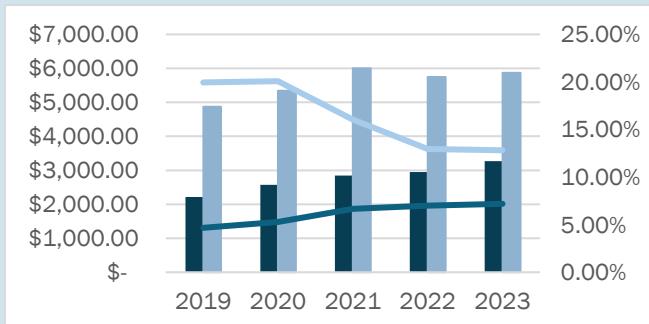


Figure 22. China net sales (USD million)

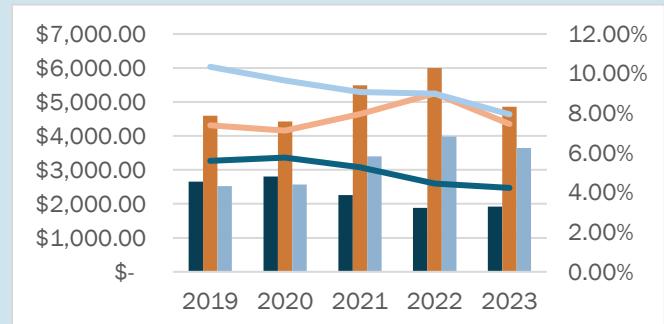


Figure 23. Japan net sales (USD million)



² The Herfindahl-Hirschman Index (HHI) is a common measure of market concentration and is used to determine market competitiveness

³ Established markets include the US, Canada, Western Europe, Japan, Australia, and New Zealand. Novartis definition of Western Europe includes Austria, Belgium, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Therapeutic Area⁴

Operating as a single global segment, Novartis focuses on the R&D, and commercialization of innovative medicines, concentrating on four core therapeutic areas: cardiovascular, renal, and metabolic (CVRM); immunology; neuroscience; and oncology. The trends and comparisons are outlined in the table below:

Table 4. Core Therapeutic Areas

CVRM	IMMUNOLOGY	NEUROSCIENCE	ONCOLOGY
TRENDS	TRENDS	TRENDS	TRENDS
The CVRM segment demonstrated substantial growth, driven by targeted investments in therapies addressing heart and renal health, as well as strategic acquisitions to enhance its renal pipeline.	Novartis's tailored innovations and its focus on biologic therapies addressing autoimmune and inflammatory conditions, allowed it to outperform competitors and secure a stronger market presence.	Neuroscience emerged as Novartis's fastest-growing therapeutic area, with its sales share increasing from 1.03% to 8.90%. This exponential growth underscores Novartis's commitment to high-burden neurological conditions and transformative therapies.	Oncology continues to be Novartis's largest therapeutic area, with sales rising representing 29.91% of its 2023 net sales. Novartis's focus on groundbreaking cancer treatments, particularly radioligand therapies and early-line interventions, has strengthened its competitive edge.
COMPARISON	COMPARISON	COMPARISON	COMPARISON
While AstraZeneca maintains higher absolute sales in this area, its slight decline in percentage terms suggests a diversified focus beyond CVRM, contrasting with Novartis's targeted strategy to consolidate its position in this therapeutic area.	In Immunology, Novartis surpassed Roche and AstraZeneca over the analyzed period, with 17.16% share of its net sales.	Despite this progress, Roche remains dominant in this segment, achieving double the sales of Novartis, which reflects the competitive intensity of the neuroscience market.	While Novartis has secured a robust position, Roche remains the leader in oncology, with AstraZeneca also exhibiting strong growth driven by its diversified oncology portfolio.

Novartis's prioritization of these innovative therapeutic areas ties directly to its shift to an innovative medicines business. This transition is underpinned by the profitability and growth potential of branded pharmaceuticals compared to generics. By focusing on high-margin therapeutic areas, Novartis positions itself to maximize revenue, maintain market leadership, and address critical healthcare needs globally.

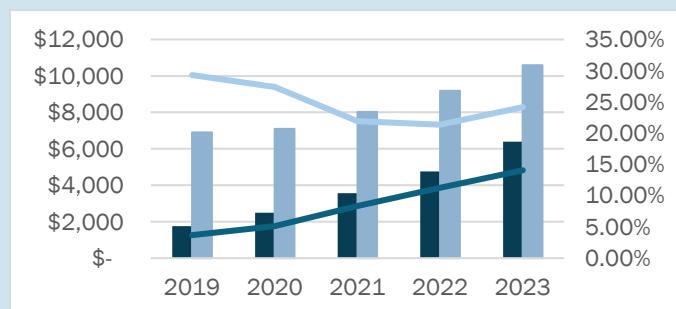


Figure 24. Cardiovascular, renal and metabolic net sales (USD million)

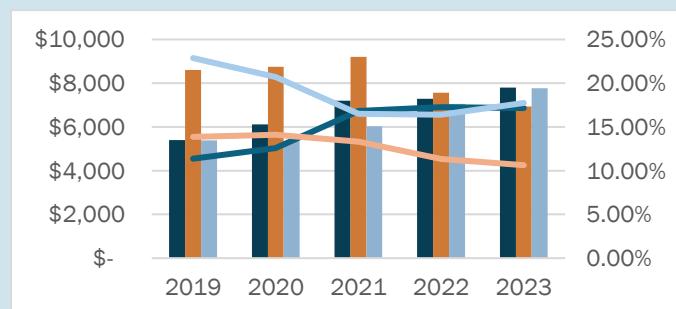


Figure 25. Immunology net sales (USD million)

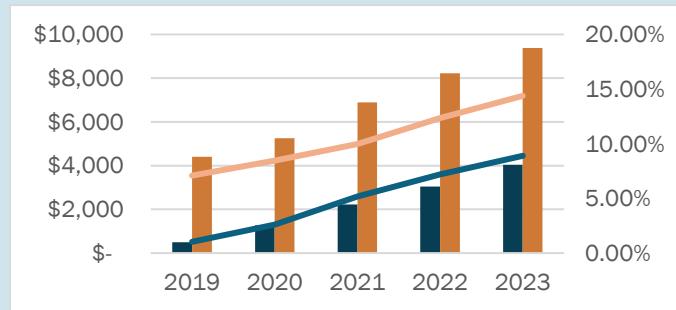


Figure 26. Neuroscience net sales (USD million)

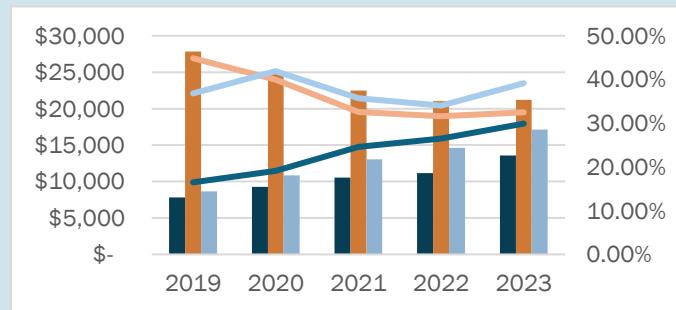


Figure 27. Oncology net sales (USD million)

⁴ In the following analysis, therapeutic areas have been reclassified to align with the 2023 organizational structure, reflecting the significant changes in segment reporting from 2019 to 2023.

Brand Category

Novartis's shift from legacy brands to promoted brands highlights its adaptability in a competitive landscape. Promoted brands now account for 70.03% of net sales, reflecting Novartis's success in driving the adoption of newer therapies. This transition allows Novartis to phase out legacy brands, which face pricing pressures and generic competition. By aligning its portfolio with its innovative medicines' strategy, Novartis has enhanced its competitive positioning and strengthened its ability to deliver sustained value in a dynamic market environment.

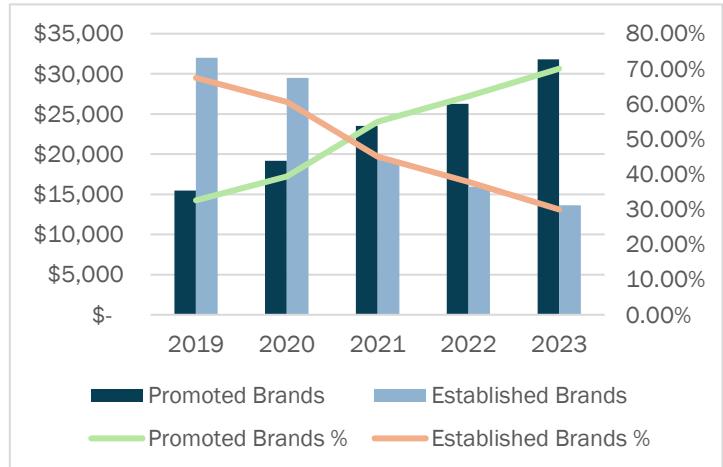


Figure 28. Novartis Net Sales by Brand Category (USD million)

FINANCIAL ANALYSIS

Benchmarking

From the benchmarking analysis conducted, AstraZeneca and Roche were selected as the most compatible companies for comparison with Novartis.

To ensure objectivity, numerical metrics were assessed using a compatibility formula. For non-numerical drivers, qualitative factors were translated into numerical scores, ensuring a consistent evaluation.

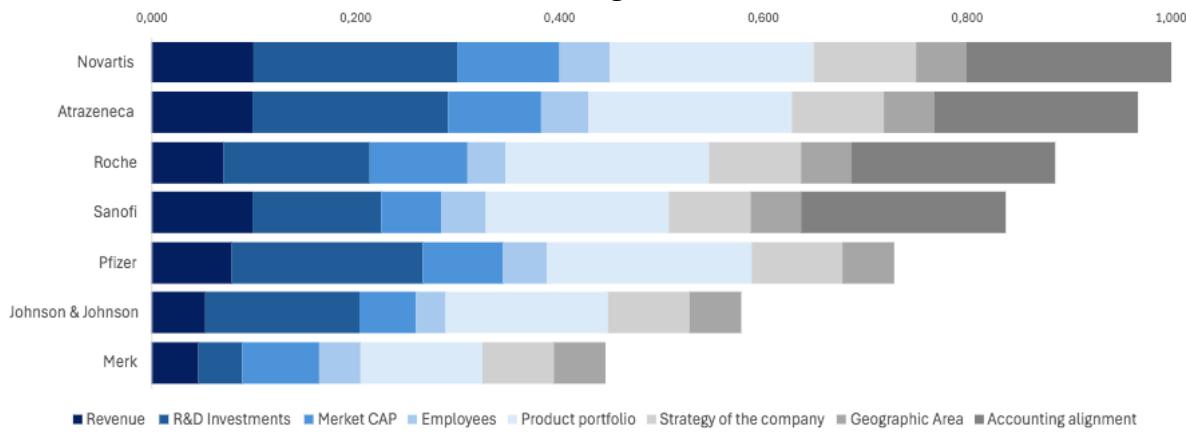


Figure 29. Benchmarking Analysis

The final compatibility scores revealed that AstraZeneca (0.97) and Roche (0.89) are the most suitable companies for benchmarking. These companies achieved the highest compatibility scores because of their similar focus areas and operational metrics:

- AstraZeneca: Closely matches Novartis' R&D intensity and strategy, emphasizing therapy areas such as oncology and immunology, alongside a comparable geographical footprint.
- Roche: Demonstrates a strong alignment in its portfolio, particularly in pharmaceuticals and diagnostics, and robust R&D investment levels. It shares similar geographical market coverage and a focus on sustainability-driven innovation.

The accounting policies of Novartis, AstraZeneca, and Roche are based on the International Financial Reporting Standards (IFRS), ensuring consistency in financial reporting and comparability across global markets.



Profitability

In this section, the analysis aims to determine the overall profitability of Novartis and the stability of this profitability. The analysis has been performed by benchmarking Novartis with the top competitors previously mentioned, AstraZeneca and Roche.

ROE: The Novartis ROE has seen fluctuations over the last five years, with a peak in 2021 of 35%. The spike in 2021 was due to selling the company's stocks in Roche. The net income from this strategic move was more than the net income of 2020 and 2019 combined. The impact of this income filters down through other profitability financial indicators, which will be discussed further in the report. Overall, compared to other companies in the same industry, Novartis displays a mid-range performance with an average of 18.5% over the period compared to Roche's of 47.2% and AstraZeneca's of 10.8%.

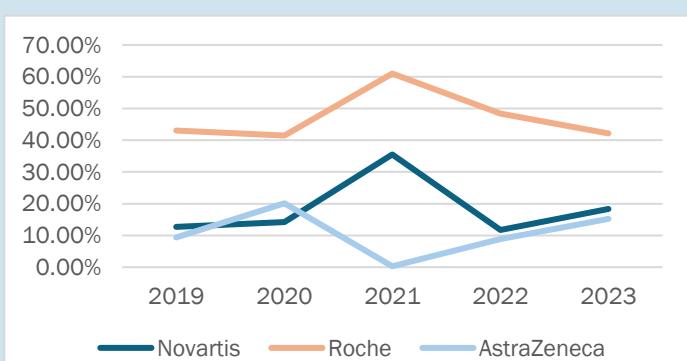


Figure 30. Return on Equity

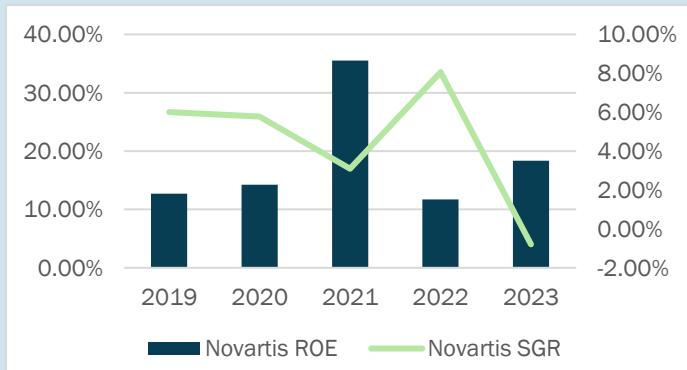


Figure 31. Sustainable Growth Rate

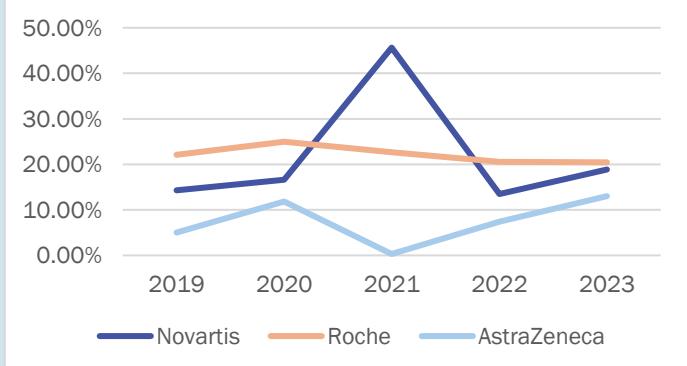


Figure 32. Net Profit Margin

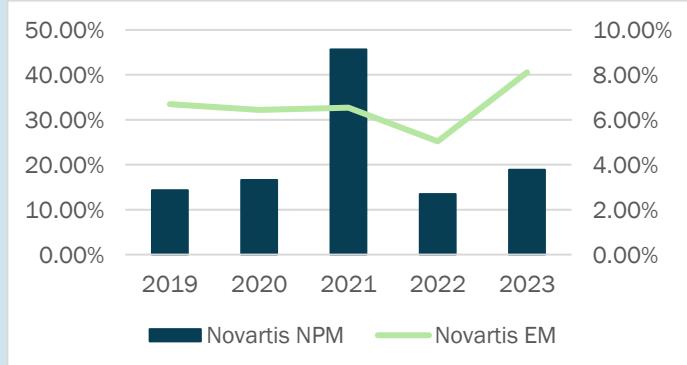


Figure 33. Economic Margin

The company's perspective focuses on achieving sustainable growth as well as operational efficiency. The financial indicators analyzed in this section determine if Novartis has created a sustainable business model.

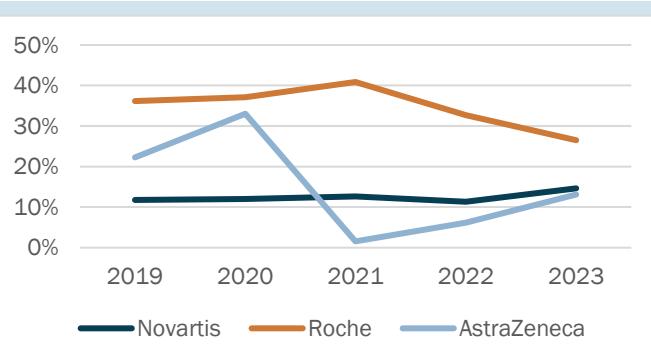


Figure 34. Return on Employed Capital

ROCE: The return on capital employed is the most efficient metric to measure how the company is creating value from capital employed. Novartis has a mid-tier performance with stable ROCE displaying a slight increase after the refocusing while the industry peers display big variations, showcasing Novartis as a stable and solid company capable of maintaining the performance through capital restructurings. This slight increase in ROCE can be attributed to Novartis' focus on products and initiatives with more added value (by discontinuing generics and other low-margin products). This is an important metric to validate the internal strategy of Novartis of refocusing.

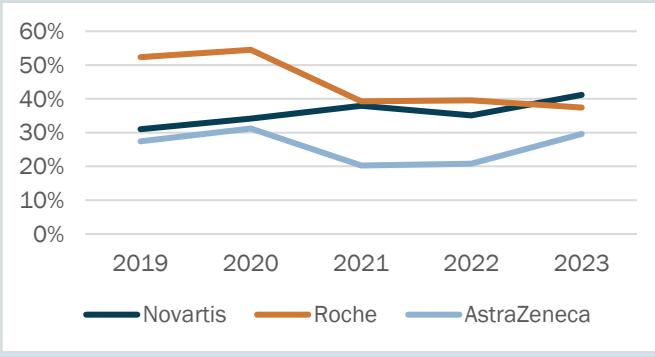


Figure 35. EBITDA Margin

EBITDA Margin: The EBITDA Margin of Novartis has been rising slightly starting at 31% in 2019 to 41% at the end of 2023, this is particularly relevant when we see that the other players in the industry have been losing gross margin in the same period, given that these competitors also had higher margins to start with. This tendency that goes against the market trend can, again, be attributed to Novartis refocusing on the core of innovative products, through spin-offs like Sandoz. This means that we are focusing on a market segment that not only yields higher margins by nature but also a market where we have a more dominant position and can command higher margins for the company, leading to these higher margins.

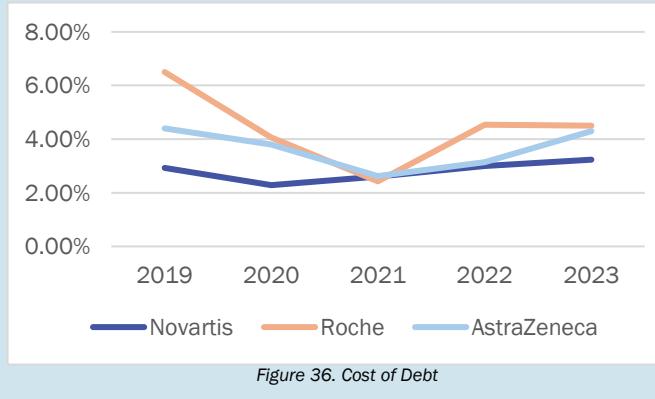


Figure 36. Cost of Debt

Cost of Debt: The cost of debt for Novartis has hovered around 3% for the last 5 years. Novartis exhibited a value of 3.23% in 2023 which places it lower than its competitors. This means Novartis is considered financially healthy by banks and can borrow money at favorable interest rates. Additionally, this indicates that Novartis is sourcing their borrowed capital in an efficient way with a better balance between current and long-term debt.

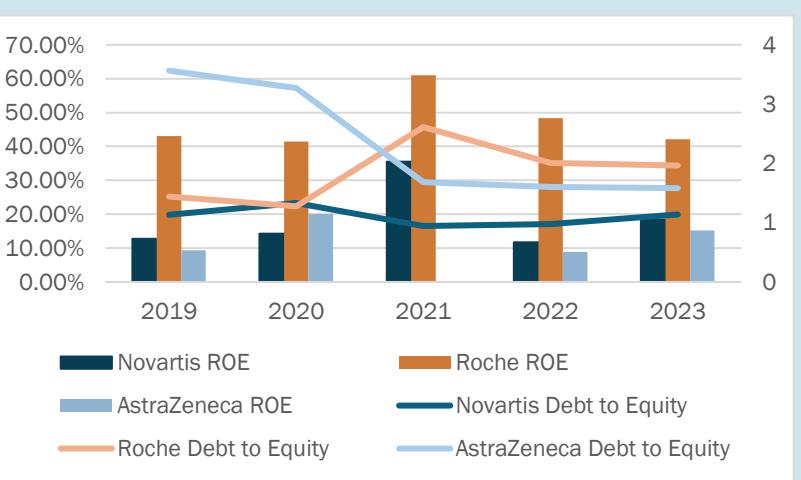


Figure 37. Debt-To-Equity vs. ROE

Debt-to-Equity Ratio: The Novartis debt-to-equity ratio, assessed here with total debt, has remained relatively consistent over the last five years with an average of 1.10. Higher D/E values indicate greater financial leverage at the cost of a higher risk and therefore have a resulting impact on ROE. Novartis' average value is lower than companies in the same industry, but the consistency indicates Novartis takes a cautious approach to leveraging which reduces risk and allows the company to support innovation and acquisitions.

Liquidity

In this section, the liquidity analysis aims to assess Novartis's internal liquidity management and financial health.

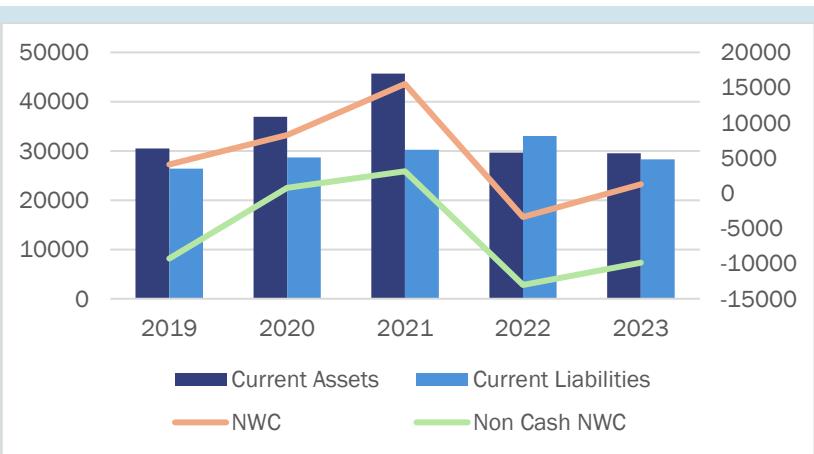


Figure 38. Net Working Capital

Net Working Capital: Novartis Net Working Capital reflects its liquidity, efficiency, and short-term financial health. The value has been positive, peaking in 2021, which indicates strong internal liquidity management and the ability to fund operations and growth. In 2022, NWC turned significantly negative, with current assets insufficient to cover liabilities. This was likely a deliberate strategy to improve short-term cash flow. This aligns with a negative Cash Conversion Cycle, showing Novartis collects cash faster than paying suppliers, which reduces external financing needs. In 2022, Novartis faced a significant liquidity strain with NWC at -3,386 million and a deeply negative CCC of -61.8 days, reflecting strong cash flow efficiency but heightened reliance on delayed supplier payments. By 2023, NWC improved though liquidity pressures persisted with a negative non-cash NWC.

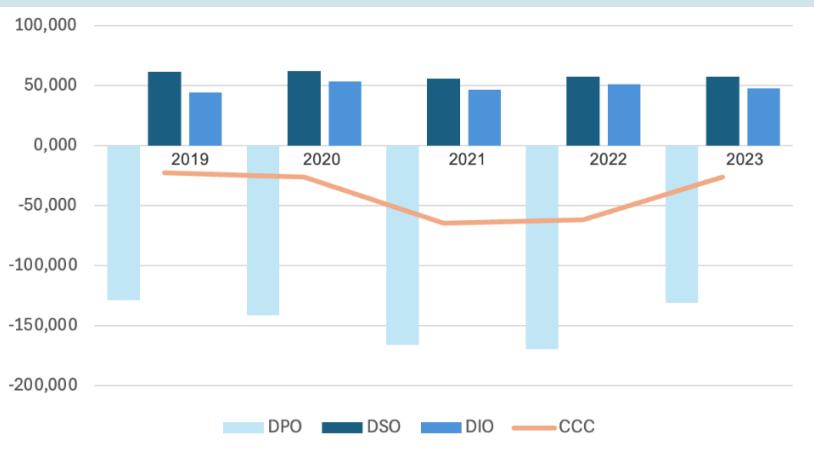


Figure 39. DSO, DOP, DIO Comparison

DPO, DSO, DIO: The cash conversion cycle measures a company's efficiency in managing inventory, receivables, and payables. Novartis' stable DSO over five years reflects consistency in receivables management. With a DPO of 128-169 days, Novartis leverages extended payment terms to improve liquidity. However, the high DIO suggests there is excess inventory holding which ties up cash and reduces liquidity. Despite this, a consistently negative CCC indicates strong liquidity management. While the 2021 and 2022 trends support liquidity, careful monitoring is needed to avoid reliance on supplier credit. La Roche maintains a positive CCC, indicating less efficient liquidity management. AstraZeneca's sharply negative CCC in 2020 reflects exceptional operational efficiency during mass vaccine production and government agreements however, Novartis leads in liquidity efficiency with a consistently negative CCC.

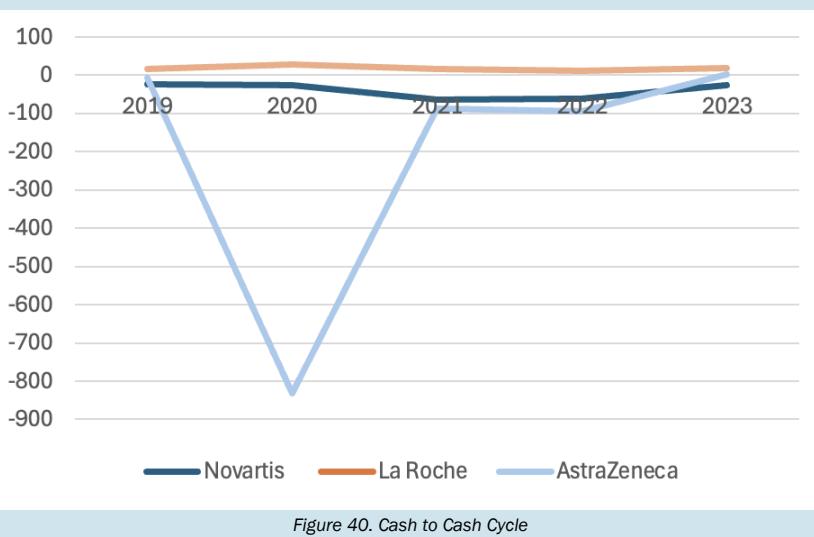


Figure 40. Cash to Cash Cycle

Quick Ratio: The difference between Novartis's Quick and Current Ratios, especially in 2021 highlights a reliance on inventory to cover short-term assets, this isn't necessarily concerning. However, it's still important to monitor because if inventory builds up due to slower sales or operational inefficiencies, it may limit the company's ability to quickly convert assets into cash for urgent liabilities. La Roche sets a great benchmark of liquidity assets management, the company outperformed its peers.

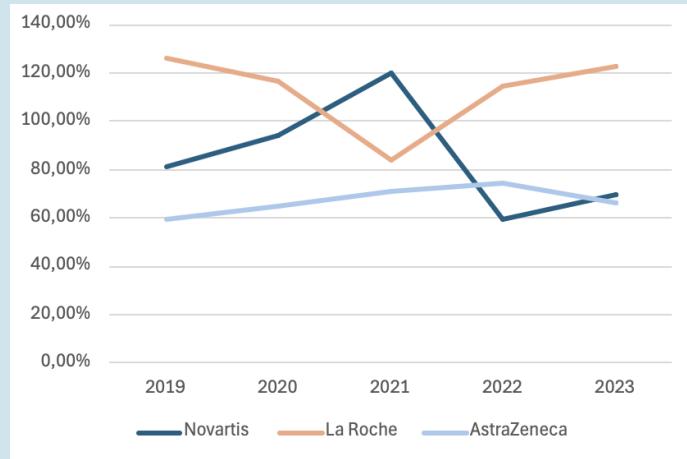


Figure 41. Quick Ratio

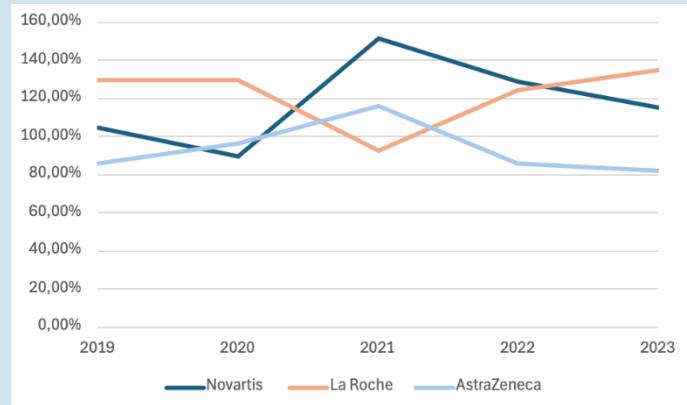


Figure 42. Current Ratio

VALUE CREATION: NON-FINANCIAL ANALYSIS

Environmental/Sustainability

The environmental impact of Novartis and its competitors was assessed using three different resources: the Carbon Disclosure Project, Morningstar's Sustainalytics, and the company goals themselves. These are summarized in the tables below.

NOVARTIS	ROCHE	ASTRAZENECA
CARBON DISCLOSURE PROJECT IMPACT ON CLIMATE CHANGE: A IMPACT ON WATER SECURITY: A	IMPACT ON CLIMATE CHANGE: N/A IMPACT ON WATER SECURITY: N/A	IMPACT ON CLIMATE CHANGE: A IMPACT ON WATER SECURITY: A
MORNINGSTAR SUSTAINALYTICS ESG RATING: 15.6 - LOW	ESG RATING: 21.8 - MEDIUM	ESG RATING: 21.5 MEDIUM

Table 5. ESG and Climate Impact Comparison



Table 6. Novartis Sustainability Goals

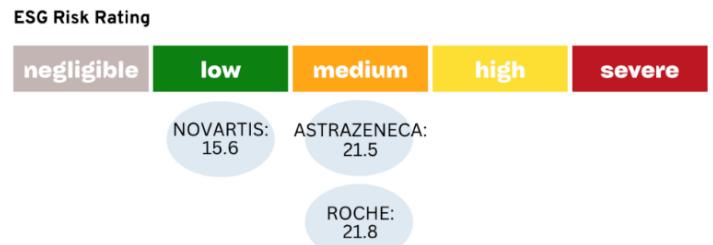


Table 7. ESG Risk Rating Comparison

Based on this analysis, Novartis is maintaining a competitive level of environmental impact according to Carbon levels and is beating its main competitors in terms of ESG risk rating. Overall, Novartis is already performing better than competitors and has realistic and obtainable company sustainability goals and is on the right track for meeting its deadlines.

Research & Development Strategy

Over the past decade, Novartis has prioritized growth and innovation by divesting non-core units such as Sandoz and Alcon. Alcon operated outside the pharmaceutical domain, while Sandoz specialized in generic drugs, a highly competitive and low-margin sector. These divestitures freed up significant liquidity, which Novartis has strategically reinvested in acquiring companies like Gyroscope Therapeutics, Chinook Therapeutics, and The Medicines Company.

These acquisitions focus on advanced therapies and cutting-edge technologies, including gene and radioligand therapies. This strategy reflects Novartis' approach to research and development, favoring acquisitions of specialized firms in emerging markets over prolonged in-house R&D processes. This shift aligns with their transformation from generics and non-pharmaceuticals to innovative, high-margin products with long life cycles at the beginning of their commercial trajectories.

Roche and AstraZeneca employ different R&D strategies. Roche emphasizes a combination of in-house research and strategic collaborations, such as acquiring Spark Therapeutics, which strengthened its position in gene therapy. AstraZeneca leverages multiple global R&D hubs and demonstrates a strong focus on internal innovation while partnering with technology companies to integrate emerging tools like AI into its R&D pipeline.

Thus, over the last decade, Novartis' reliance on an aggressive M&A strategy contrast with Roche's and AstraZeneca's more balanced focus on in-house research and external partnerships.

Besides R&D efficiency and strategy, overall internal investment levels are key indicators of companies' R&D efforts. One of the main metrics used to evaluate the R&D investment levels is R&D/Sales. Usually, the most solid pharmaceutical companies aim to keep their R&D investment as at least 20% of the sales and the top pharmaceutical companies often exceed the 30% mark. The R&D investment is also a good indicator of the future performance and growth of pharmaceutical companies.

R&D/pipeline assessment	AA and above	A	BBB	BB	B and below
R&D to sales	> 20%	15-20%	10-15%		< 10%

Table 8. R&D to Sales Ratio Classification by Company Rating Categories

Over the past few years, Novartis has demonstrated lower core internal R&D investment levels than competitors, however, the tendency is to increase the investment level in R&D, this means that in 2023 they almost caught up to AstraZeneca and Roche, this is a manifestation of the changes in Novartis investment strategy and is a good indicator that Novartis will continue to improve their position, especially in the innovative medicine market.

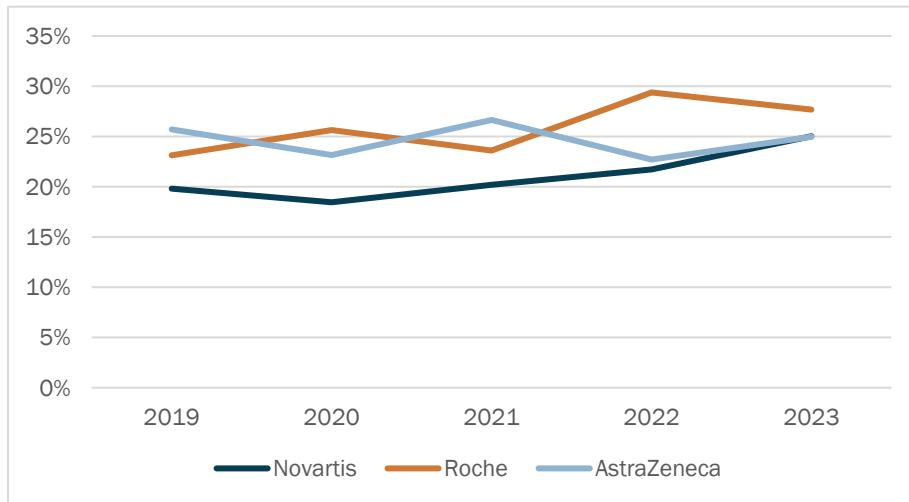


Figure 43. R&D Spending to Sales

CONCLUSIONS

Financial Analysis Wrap - Up

The analysis of the relevant indicators chosen in this report show Novartis has a mixed financial profile in which the company has demonstrated stable profitability including an increasing EBITDA margin but also indicates challenges when considering liquidity of assets due to the number of inventories that compose the current assets. The current development strategy follows a plan to divest the company in the generics business and align with the core therapeutic innovative and branded areas. With this in mind, we can attribute the instability in certain indicators over the last several years to the changes that come with this specific strategic plan as well as impacts from COVID-19.

As previously mentioned, the industry of pharmaceuticals is rapidly growing. The impact of increasing competition affects Novartis's financial strategies because the company needs to ensure the financial margin to support research and development, as well as the mergers and acquisitions that need to occur to remain competitive in this market. Novartis is overall positioned well for long-term growth, because the company has the capacity to grow without relying heavily on external financing, thanks to its strategic focus on high-margin products. Novartis is also cautious in its financial leverage but paired with a low cost of debt and lower debt-to-equity ratio than competitors, it ensures the support of innovation and expansion.

It is also important to look at risk factors, even though Novartis seems to be, at this point, liquid enough to face all of its debts, this liquidity is largely leveraged on a negative cash-to-cash cycle. It's important to consider that if Novartis suppliers start demanding Novartis to pay them faster or if, due to industry disruptions, Novartis's customers run into delays paying their invoices, Novartis may have to resort to large increases in financial debt to sustain their operating cycle that could highly impact Novartis operations and profitability, as well as risk. Therefore, Novartis may want to investigate financial tools such as factorings to mitigate this risk.

Future Outlook

The outlook for Novartis is optimistic as the company continues to implement its strategy of transitioning to an advanced medicine company. In 2023, Novartis spun off Sandoz and acquired Chinook Therapeutics to focus on high-margin innovative medicines. This action will most likely cause lower revenue in the short term due to the loss of Sandoz's profit, but with Chinook Therapeutics at the forefront of medicine for kidney diseases, with several projects in Phase III, Novartis stands to gain substantially from this acquisition soon.

The continued efforts to increase R&D investment must be sustained as they are the best leveraging tool for future growth in both sales volume and margins. Therefore, if Novartis continues the trend of a high R&D investment, they are expected to further strengthen its competitive position in its core geographical markets, enabling the maximization of value delivered to shareholders and other involved stakeholders.

Novartis has decided to respond to the disruptive technological innovation of AI by adopting the technology and adding it to the core innovations of the company. These investments will also enable Novartis to generate more efficient research and leverag investments to generate even higher returns in terms of ready-to-market products, further enabling Novartis's growth.

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ANNEX I

Data Related to Segmental Analysis

Novartis Net Sales by Region (USD million)

Region/ Year	2023	2022	2021	2020	2019
United States	\$ 17,959	\$ 15,935	\$ 14,923	\$ 16,484	\$ 16,280
Europe	\$ 14,997	\$ 14,371	\$ 15,721	\$ 18,715	\$ 17,933
Asia, Africa, Australasia	\$ 9,308	\$ 8,978	\$ 9,355	\$ 10,219	\$ 9,799
Canada and Latin America	\$ 3,176	\$ 2,922	\$ 2,782	\$ 3,241	\$ 3,433
Total	\$ 45,440	\$ 42,206	\$ 42,781	\$ 48,659	\$ 47,445

Novartis Net Sales by Country (USD million)

Country/ Year	2023	2022	2021	2020	2019
Switzerland	\$ 1,308	\$ 1,036	\$ 926	\$ 800	\$ 848
United States	\$ 17,959	\$ 15,935	\$ 14,923	\$ 16,484	\$ 16,280
Germany	\$ 3,367	\$ 3,101	\$ 3,595	\$ 4,518	\$ 4,120
China	\$ 3,267	\$ 2,948	\$ 2,849	\$ 2,573	\$ 2,214
Japan	\$ 1,924	\$ 1,883	\$ 2,259	\$ 2,804	\$ 2,656
France	\$ 1,749	\$ 1,754	\$ 1,955	\$ 2,442	\$ 2,442
Other	\$ 15,866	\$ 15,549	\$ 16,274	\$ 19,038	\$ 18,885
Total	\$ 45,440	\$ 42,206	\$ 42,781	\$ 48,659	\$ 47,445

Novartis Net Sales by Market (USD million)

Market/ Year	2023	2023	2023	2023	2023
Established Markets	\$ 33,725	\$ 31,386	\$ 32,183	\$ 36,732	\$ 35,684
Emerging Growth Markets	\$ 11,715	\$ 10,820	\$ 10,598	\$ 11,927	\$ 11,761
Total	\$ 45,440	\$ 42,206	\$ 42,781	\$ 48,659	\$ 47,445

Novartis Net Sales by Therapeutic Area (USD million)

Therapeutic Area/ Year	2023	2022	2021	2020	2019
Promoted Brands	\$ 31,822	\$ 26,257	\$ 23,519	\$ 19,169	\$ 15,454
Cardiovascular, renal and metabolic	\$ 6,391	\$ 4,756	\$ 3,561	\$ 2,498	\$ 1,750
Immunology	\$ 7,798	\$ 7,287	\$ 7,206	\$ 6,119	\$ 5,395
Neuroscience	\$ 4,043	\$ 3,038	\$ 2,220	\$ 1,269	\$ 490
Oncology	\$ 13,590	\$ 11,176	\$ 10,532	\$ 9,283	\$ 7,819
Established Brands	\$ 13,618	\$ 15,949	\$ 19,262	\$ 29,490	\$ 31,991
Total	\$ 45,440	\$ 42,206	\$ 42,781	\$ 48,659	\$ 47,445

Roche Net Sales by Region & Country (USD million)

Region,Country/ Year	2023	2022	2021	2020	2019
Europe	\$ 14,721	\$ 15,057	\$ 18,020	\$ 14,652	\$ 13,428
Switzerland	\$ 754	\$ 719	\$ 803	\$ 713	\$ 596
Germany	\$ 3,186	\$ 3,468	\$ 4,716	\$ 3,535	\$ 3,081
Rest of Europe	\$ 10,781	\$ 10,869	\$ 12,500	\$ 10,404	\$ 9,752
North America	\$ 31,133	\$ 30,568	\$ 30,147	\$ 29,861	\$ 31,019
United States	\$ 30,203	\$ 29,409	\$ 29,142	\$ 28,922	\$ 30,024
Rest of North America	\$ 930	\$ 1,159	\$ 1,005	\$ 938	\$ 995
Latin America	\$ 3,301	\$ 3,021	\$ 3,018	\$ 2,546	\$ 2,887
Asia	\$ 14,738	\$ 16,365	\$ 16,207	\$ 13,585	\$ 13,380
Japan	\$ 4,860	\$ 5,995	\$ 5,493	\$ 4,421	\$ 4,591
Rest of Asia	\$ 9,878	\$ 10,371	\$ 10,713	\$ 9,164	\$ 8,789
Africa, Australia and Oceania	\$ 1,347	\$ 1,600	\$ 1,621	\$ 1,402	\$ 1,373
Total	\$ 65,240	\$ 66,612	\$ 69,012	\$ 62,046	\$ 62,087

AstraZeneca Total Revenue by Region & Country (USD million)

Region,Country/ Year	2023	2022	2021	2020	2019
Europe	\$ 13,093	\$ 12,026	\$ 11,072	\$ 6,577	\$ 5,984
United Kingdom	\$ 3,368	\$ 3,117	\$ 3,245	\$ 1,741	\$ 1,822
France	\$ 1,152	\$ 1,107	\$ 915	\$ 653	\$ 578
Germany	\$ 2,099	\$ 1,902	\$ 1,486	\$ 937	\$ 704
Italy	\$ 813	\$ 735	\$ 577	\$ 431	\$ 396
Spain	\$ 847	\$ 738	\$ 578	\$ 398	\$ 359
Sweden	\$ 1,704	\$ 1,721	\$ 2,322	\$ 1,026	\$ 834
Others	\$ 3,110	\$ 2,706	\$ 1,949	\$ 1,391	\$ 1,291
The Americas	\$ 20,771	\$ 19,619	\$ 14,022	\$ 10,312	\$ 9,327
United States	\$ 18,121	\$ 17,278	\$ 12,047	\$ 8,955	\$ 8,047
Canada	\$ 967	\$ 1,166	\$ 772	\$ 596	\$ 466
Others	\$ 1,683	\$ 1,175	\$ 1,203	\$ 761	\$ 814
Asia, Africa & Australasia	\$ 11,947	\$ 12,706	\$ 12,323	\$ 9,728	\$ 9,073
Australia	\$ 390	\$ 571	\$ 547	\$ 282	\$ 266
China	\$ 5,872	\$ 5,743	\$ 6,002	\$ 5,345	\$ 4,867
Japan	\$ 3,640	\$ 3,986	\$ 3,395	\$ 2,567	\$ 2,522
Others	\$ 2,045	\$ 2,406	\$ 2,379	\$ 1,534	\$ 1,418
Total Revenue	\$ 45,811	\$ 44,351	\$ 37,417	\$ 26,617	\$ 24,384

Roche Net Sales by Therapeutic Area (USD million)

Therapeutic Area/ Year	2023	2022	2021	2020	2019
Pharmaceuticals	\$ 49,569	\$ 47,948	\$ 49,496	\$ 47,374	\$ 49,006
Oncology	\$ 21,208	\$ 21,047	\$ 22,491	\$ 24,812	\$ 27,849
Neuroscience	\$ 9,383	\$ 8,228	\$ 6,896	\$ 5,252	\$ 4,402
Immunology	\$ 6,936	\$ 7,559	\$ 9,201	\$ 8,753	\$ 8,600
Haemophilia A	\$ 4,608	\$ 4,024	\$ 3,321	\$ 2,330	\$ 1,394
Ophthalmology	\$ 3,183	\$ 1,738	\$ 1,489	\$ 1,536	\$ 1,844
Infectious Diseases	\$ 1,173	\$ 2,275	\$ 2,446	\$ 916	\$ 1,100
Other Therapeutic Areas	\$ 3,078	\$ 3,077	\$ 3,652	\$ 3,776	\$ 3,816
Diagnostics	\$ 15,671	\$ 18,663	\$ 19,516	\$ 14,671	\$ 13,081
Centralised and Point of Care Solutions	\$ 10,143	\$ 11,962	\$ 11,752	\$ 7,737	\$ 7,898
Molecular Lab	\$ 2,467	\$ 3,632	\$ 4,587	\$ 4,000	\$ 2,130
Pathology Lab	\$ 1,542	\$ 1,387	\$ 1,321	\$ 1,157	\$ 1,115
Diabetes Care	\$ 1,519	\$ 1,682	\$ 1,857	\$ 1,777	\$ 1,937
Total	\$ 65,240	\$ 66,612	\$ 69,012	\$ 62,046	\$ 62,087

AstraZeneca Product Sales by Therapeutic Area (USD million)

Therapeutic Area/ Year	2023	2022	2021	2020	2019
Oncology	\$ 17,145	\$ 14,631	\$ 13,048	\$ 10,850	\$ 8,667
Cardiovascular, renal and metabolic	\$ 10,585	\$ 9,188	\$ 8,020	\$ 7,096	\$ 6,906
Respiratory & Immunology	\$ 7,764	\$ 7,053	\$ 6,034	\$ 5,357	\$ 5,391
Vaccines & Immune Therapies	\$ 6,107	\$ 5,765	\$ -	\$ -	\$ -
Rare Disease	\$ 1,012	\$ 4,736	\$ 3,070	\$ -	\$ -
Other Medicines	\$ 1,176	\$ 1,625	\$ 2,367	\$ 2,585	\$ 2,601
COVID-19	\$ -	\$ -	\$ 4,002	\$ 2	\$ -
Total	\$ 43,789	\$ 42,998	\$ 36,541	\$ 25,890	\$ 23,565

Novartis Top 20 Brands 2023 (USD million)

Brand	Net Sales	Share %
Entresto	\$ 6,035	13.28%
Cosentyx	\$ 4,980	10.96%
Promacta/Revolade	\$ 2,269	4.99%
Kesimpta	\$ 2,171	4.78%
Kisqali	\$ 2,080	4.58%
Tafinlar + Mekinist	\$ 1,922	4.23%
Tasigna	\$ 1,848	4.07%
Jakavi	\$ 1,720	3.79%
Lucentis	\$ 1,475	3.25%
Xolair	\$ 1,463	3.22%
Ilaris	\$ 1,355	2.98%
Sandostatin	\$ 1,314	2.89%
Zolgensma	\$ 1,214	2.67%
Pluvicto	\$ 980	2.16%
Gilenya	\$ 925	2.04%
Exforge Group	\$ 713	1.57%
Galvus Group	\$ 692	1.52%
Diovan Group	\$ 613	1.35%
Lutathera	\$ 605	1.33%
Gleevec/Glivec	\$ 561	1.23%
Rest of Portfolio	\$ 10,505	23.12%
Total	\$ 45,440	100%

ANNEX II

Additional Benchmarking Comments

In the process of competitor selection, a comprehensive evaluation of several pharmaceutical companies was carried out based on eight key metrics: **Revenue, R&D Investments, Market Capitalization, Employees, Product Portfolio, Strategy of the Company, Geographic Area, and Accounting Alignment**. Each metric was assigned a specific weight based on its importance to Novartis' business model and strategic priorities.

Company	Revenue (0,1)	R&D Investments (0,2)	Market CAP(Billions USD) (0,1)	#Employees (0,05)	Product portfolio (0,2)	Strategy of the company (0,1)	Geographic Area (0,05)	Accounting alignment (0,2)
Novartis	45440	11371	206,3	76057	5	5	5	5
Roche	65147	15784	197,07	103613	5	4,5	5	5
Atrazeneca	45810	10935	227	83500	5	4,5	5	5
Sanofi	46047	7182	120,4	86088	4,5	4	5	5
Merk	20993	2445	276	62908	3	3,5	5	5
Pfizer	58496	10679	162,56	88000	5	4,5	5	5
Johnson & Johnson	85200	15100	377	131900	4	4	5	5

Company	Revenue	R&D Investments	Market CAP	#Employees	Product portfolio	Strategy of the company	Geographic Area	Accounting alignment	Results
Novartis	0,100	0,200	0,100	0,050	0,2	0,1	0,05	0,2	0,2
Atrazeneca	0,099	0,192	0,091	0,046	0,2	0,09	0,05	0,2	0,5
Roche	0,07	0,144	0,096	0,037	0,2	0,09	0,05	0,2	0,8
Sanofi	0,099	0,126	0,058	0,044	0,18	0,08	0,05	0,2	0,8
Pfizer	0,078	0,188	0,079	0,043	0,2	0,09	0,05	0	0,1
Johnson & Job	0,053	0,151	0,055	0,029	0,16	0,08	0,05	0	0,4
Merk	0,046	0,043	0,075	0,041	0,12	0,07	0,05	0	0,4

ANNEX III

Profitability Analysis (Novartis, Roche, AstraZeneca)

Profitability Analysis - Shareholders

Return on Equity		2023	2022	2021	2020	2019
Company/ Year						
Novartis	18,37%	11,72%	35,50%	14,26%	12,70%	
La Roche	42,16%	48,34%	60,99%	41,46%	43,08%	
AstraZeneca	15,23%	8,89%	0,29%	20,13%	9,35%	

Net Profit Margin		2023	2022	2021	2020	2019
Company/ Year						
Novartis	18,86%	13,48%	45,65%	16,59%	14,31%	
La Roche	20,45%	20,56%	22,68%	24,97%	22,13%	
AstraZeneca	13,01%	7,42%	0,31%	11,81%	5,03%	

Sustainable Growth Rate		2023	2022	2021	2020	2019
Company/ Year						
Novartis	-0,79%	8,06%	3,09%	5,77%	6,01%	
La Roche	17,46%	22,99%	28,07%	64,87%	73,54%	
AstraZeneca	-5,49%	-328,51%	-0,07%	-38,46%	-7,03%	

Economic Margin		2023	2022	2021	2020	2019
Company/ Year						
Novartis	8,11%	5,04%	6,54%	6,44%	6,70%	
La Roche	13,19%	15,73%	20,76%	19,30%	24,79%	
AstraZeneca	18,72%	18,59%	8,99%	15,25%	9,16%	

Profitability Analysis - Stakeholders

ROCE		2023	2022	2021	2020	2019
Company/ Year						
Novartis	14,63%	11,33%	12,66%	11,99%	11,80%	
La Roche	26,51%	32,72%	40,87%	37,09%	36,16%	
AstraZeneca	13,14%	6,19%	1,55%	33,04%	22,27%	

EBITDA Margin		2023	2022	2021	2020	2019
Company/ Year						
Novartis	41,18%	35,10%	37,92%	34,15%	31,02%	
La Roche	37,43%	39,53%	39,32%	54,52%	52,39%	
AstraZeneca	29,64%	20,83%	20,27%	31,22%	27,43%	

Debt to Equity		2023	2022	2021	2020	2019
Company/ Year						
Novartis	1,14	0,98	0,94	1,33	1,13	
La Roche	1,96	2,01	2,61	1,28	1,44	
AstraZeneca	1,58	1,60	1,68	3,27	3,56	

Cost of Debt		2023	2022	2021	2020	2019
Company/ Year						
Novartis	3,23%	2,99%	2,61%	2,28%	2,93%	
La Roche	4,51%	4,53%	2,43%	4,07%	6,50%	
AstraZeneca	4,29%	3,15%	2,62%	3,80%	4,40%	

Custom Ratios

R&D/Sales		2023	2022	2021	2020	2019
Company/ Year						
Novartis (Core)	25,02%	21,73%	20,20%	18,45%	19,82%	
La Roche	27,69%	29,38%	23,61%	25,65%	23,13%	
AstraZeneca	24,97%	22,70%	26,64%	23,14%	25,71%	

ANNEX IV

Liquidity Analysis (Novartis, Roche, AstraZeneca)

Liquidity Analysis - Ratios

Benchmarking Current Ratio

Company/ Year	2023	2022	2021	2020	2019
Novartis	115,50%	128,80%	151,34%	89,76%	104,39%
La Roche	134,73%	124,15%	92,74%	129,69%	129,58%
AstraZeneca	82,03%	85,93%	116,15%	96,24%	85,90%

Benchmarking Quick Ratio

Company/ Year	2023	2022	2021	2020	2019
Novartis	69,87%	59,83%	120,28%	94,21%	81,60%
Roche	122,80%	114,74%	83,86%	116,48%	125,85%
AstraZeneca	66,32%	74,63%	71,37%	64,71%	59,60%

Benchmarking Cash to Cash Cycle

Company/ Year	2023	2022	2021	2020	2019
Novartis	-26,33	-61,77	-64,36	-26,02	-22,72
Roche	18,42	11,95	16,51	27,83	16,84
AstraZeneca	2,06	-94,65	-87,01	-831,83	-6,85

Net Working Capital

Year	Current Assets	Current Liabilities	NWC	Non Cash NWC
2019	30481	26390	4091	-9302
2020	36910	28656	8254	737
2021	45718	30208	15510	3103
2022	29673	33059	-3386	-13044
2023	29504	28264	1240	-9872

DPO, DSO, DIO, CCC

Year	DPO	DSO	DIO	CCC
2019	-128,5641925	61,51510537	44,33000365	-22,71908345
2020	-141,146221	61,63720997	53,49092665	-26,01808439
2021	-166,1348361	55,53216763	46,24327663	-64,3593918
2022	-169,6279238	57,08034433	50,77503975	-61,7725397
2023	-130,9152468	57,08747799	47,49658891	-26,33117993

ANNEX V

Novartis Consolidated Financial Statements, Common Size Analysis, Reclassification

Novartis

Consolidated balance sheets

(At December 31, 2023 and 2022) (USD millions)

	Note	2023	2022	2021	2020	2019	2018
Assets							
Non current assets							
Property and Plant Equipment	10	9514	10764	11545	12263	12069	15696
Right-of-use assets	11	1410	1431	1561	1676	1677	0
Goodwill	12	23341	29301	29595	29999	26524	35294
Intangible assets other than goodwill	12	26879	31644	34182	36809	28787	38719
Investments in associated companies	5	205	143	205	9632	8644	8352
Deferred tax assets	13	4309	3739	3743	8214	7909	8699
Financial assets	14	2607	2411	3036	2901	2518	2345
Other non-current assets	14	1199	1110	2210	892	738	895
Total non-current assets		69464	80543	86077	102386	88866	110000
Current Assets							
Inventories	15	5913	7175	6666	7131	5982	6956
Trade receivables	16	7107	8066	8005	8217	8301	8727
Income tax receivables		426	268	278	2762	254	248
Marketable securities, commodities, time deposits and derivative financial instruments	17	1035	11413	15922	1905	334	2693
Cash and cash equivalents	17	13393	7517	12407	9658	11112	13271
Other current assets		2607	2471	2440	2523	3521	2861
Total current assets		30481	36910	45718	29673	29504	35563
Total assets		99945	117453	131795	132059	118370	145563

Equity and Liabilities

	19	825	890	901	913	936	944
Share capital	19	-41	-92	-48	-53	-80	-69
Treasury shares		45883	58544	66802	55738	54618	7739
Reserves		46667	59342	67655	56598	55474	78614
Equity attributable to Novartis AG shareholders							
Non-controlling interests		83	81	167	68	77	78
Total equity		46750	59423	67822	56666	55551	78692

Liabilities

	20	18436	20244	22902	26259	20353	22470
Financial Debts	11	1598	1538	1621	1719	1703	
Lease liabilities	13	2248	2686	3070	7422	5867	7475
Deferred tax liabilities	21	4523	4906	6172	6934	6632	7319
Provisions and other non-current liabilities		26805	29374	33765	42334	34555	37264
Total non-current liabilities							
Current liabilities							
Trade payables		4926	5146	5553	5403	5424	5556
Financial debts and derivative financial instruments	22	6175	5931	6295	9785	7031	9678
Lease liabilities	11	230	251	275	286	246	
Current income tax liabilities		1893	2533	2415	2458	2194	2038
Provisions and other current liabilities	23	13166	14795	15670	15127	13369	12284
Total current liabilities		26390	28656	30208	33059	28264	29556
Total liabilities		53195	58030	63973	75393	62819	66871
Total equity and liabilities		99945	117453	131795	132059	118370	145563

COMMON SIZE ANALYSIS										Horizontal Analysis				
Vertical Analysis					Horizontal Analysis					2023/2022	2022/2021	2021/2020	2020/2019	2019/2018
2023		2022		2021		2020		2019		2023/2022	2022/2021	2021/2020	2020/2019	2019/2018
9.52%	13.36%	9.16%	13.36%	8.76%	13.41%	9.29%	11.98%	10.20%	13.58%	-11.61%	-6.76%	-5.86%	1.61%	-23.11%
1.41%	1.78%	1.22%	1.78%	1.18%	1.81%	1.27%	1.64%	1.42%	1.89%	-1.47%	-8.33%	-6.86%	-0.06%	-4.88%
23.35%	36.38%	24.95%	36.38%	22.46%	34.38%	22.72%	29.30%	22.41%	29.85%	-20.34%	-0.99%	-1.35%	13.10%	-24.85%
26.89%	39.29%	26.94%	39.29%	25.94%	39.71%	27.87%	35.95%	24.32%	32.39%	-15.06%	-7.42%	-7.14%	27.87%	-25.65%
0.21%	0.18%	0.12%	0.18%	0.16%	0.24%	7.29%	9.41%	7.30%	9.73%	43.36%	-30.24%	-97.87%	11.43%	3.50%
4.31%	6.46%	3.18%	4.64%	2.84%	4.35%	6.22%	8.02%	6.68%	8.90%	15.24%	-0.11%	-54.43%	3.86%	-9.08%
2.61%	2.99%	2.05%	2.99%	2.30%	3.53%	2.20%	2.83%	2.13%	2.83%	8.13%	-20.59%	4.65%	15.21%	7.38%
1.20%	1.38%	0.95%	1.38%	1.68%	2.57%	0.68%	0.87%	0.62%	0.83%	8.02%	-49.77%	147.76%	20.87%	-17.54%
69.50%	100.00%	68.57%	100.00%	65.31%	100.00%	77.53%	100.00%	75.07%	100.00%	-13.76%	-6.43%	-15.93%	15.21%	-19.21%
9.52%	19.40%	6.11%	19.44%	5.06%	14.58%	5.40%	24.03%	5.05%	19.56%	-17.59%	7.64%	-6.52%	19.21%	-14.00%
7.11%	23.32%	6.87%	21.85%	6.07%	17.51%	6.22%	27.69%	7.01%	24.54%	-11.89%	0.76%	-2.58%	-1.01%	-4.88%
0.43%	1.40%	0.23%	0.73%	0.21%	0.61%	2.0%	9.31%	0.21%	0.70%	58.96%	-3.60%	-89.93%	98.40%	2.42%
1.04%	3.40%	0.92%	30.92%	12.08%	34.83%	1.44%	6.42%	0.28%	7.57%	-90.93%	-28.32%	735.80%	470.36%	-87.60%
13.40%	43.94%	6.40%	20.37%	9.41%	27.14%	7.31%	32.55%	9.39%	37.32%	78.17%	-39.41%	28.46%	-13.08%	-16.27%
2.61%	8.55%	2.10%	6.69%	1.85%	5.34%	1.91%	8.50%	2.97%	8.04%	5.50%	1.27%	-3.29%	-28.34%	23.07%
30.50%	100.00%	31.43%	100.00%	34.69%	100.00%	22.47%	100.00%	24.93%	100.00%	-17.42%	-19.27%	54.07%	0.57%	-17.04%
100.00%		100.00%		100.00%		100.00%		100.00%		-14.91%	-10.88%	-0.20%	11.56%	-18.68%
0.83%	1.76%	0.76%	1.50%	0.68%	1.33%	0.69%	1.61%	0.79%	1.68%	-8.93%	-11.61%	-12.78%	29.02%	-9.42%
-0.04%	-0.09%	-0.08%	-0.15%	-0.04%	-0.07%	-0.04%	-0.09%	-0.07%	-0.14%	3.90%	-5.12%	-5.70%	0.94%	-15.94%
45.91%	98.15%	49.84%	98.52%	50.69%	98.50%	42.21%	98.36%	46.14%	98.32%	-16.31%	-12.51%	-58.64%	26.50%	-21.51%
46.69%	99.82%	50.52%	99.86%	51.33%	99.75%	42.86%	99.88%	46.86%	99.86%	-21.36%	-12.29%	19.54%	2.03%	-29.43%
0.08%	0.18%	0.07%	0.14%	0.13%	0.25%	0.05%	0.12%	0.07%	0.14%	2.47%	-51.50%	145.59%	-11.69%	-1.28%
46.78%	100.00%	50.59%	100.00%	51.46%	100.00%	42.91%	46.93%	100.00%	46.93%	-21.33%	-12.38%	19.69%	2.01%	-29.41%
18.45%	68.78%	17.24%	68.92%	17.38%	67.83%	19.88%	62.03%	17.19%	58.90%	-8.93%	-11.61%	-12.78%	29.02%	-9.42%
1.60%	5.96%	1.31%	5.24%	1.23%	4.80%	1.30%	4.06%	1.44%	4.93%	2.25%	-8.77%	-8.73%	-3.85%	-16.26%
2.25%	8.39%	2.29%	9.14%	2.33%	9.09%	5.62%	17.53%	4.96%	16.98%	-25.27%	4.89%	-1.75%	12.03%	7.65%
4.53%	16.87%	4.18%	16.70%	4.68%	18.28%	5.25%	16.38%	5.60%	19.19%	-11.01%	-5.58%	3.59%	13.15%	8.83%
26.82%	100.00%	25.01%	100.00%	25.62%	100.00%	32.06%	100.00%	29.19%	100.00%	-7.81%	-20.51%	-10.99%	4.55%	-9.39%
4.93%	18.67%	4.38%	17.96%	4.21%	18.38%	4.09%	16.34%	4.58%	19.19%	-8.75%	-13.00%	-20.24%	22.51%	-7.27%
6.18%	23.40%	5.05%	20.70%	4.78%	20.84%	7.41%	29.60%	5.94%	24.88%	4.11%	-5.78%	-35.67%	39.17%	-27.35%
0.23%	0.87%	0.21%	0.88%	0.21%	0.91%	0.22%	0.87%	0.21%	0.87%	-8.37%	-8.73%	-3.85%	16.26%	
1.89%	7.17%	2.16%	8.84%	1.83%	7.99%	1.86%	7.44%	1.85%	7.76%	-25.27%	4.89%	-1.75%	12.03%	7.65%
13.17%	49.89%	12.60%	51.63%	11.89%	51.87%	11.45%	45.76%	11.29%	47.30%	-11.01%	-5.58%	3.59%	13.15%	8.83%
26.40%	100.00%	24.40%	100.00%	22.92%	100.00%	25.03%	100.00%	23.88%	100.00%	-7.91%	-5.14%	-8.62%	16.97%	-4.37%
53.22%	49.41%	48.54%	57.09%	57.09%	53.07%	53.07%	53.07%	53.07%	53.07%	-8.33%	-9.29%	-15.15%	20.03%	-6.06%
100.00%		100.00%		100.00%		100.00%		100.00%		-14.91%	-10.88%	-0.20%	11.56%	-18.68%

Novartis
Consolidated income statements

(For the years ended December 31, 2023, 2022 and 2021) (USD millions unless indicated otherwise)

(For the years ended December 31, 2023, 2022 and 2021) (USD millions unless indicated otherwise)	Note	2023	2022	2021	2020	2019	2018
Net sales from continuing operations	4	45440	42206	42781	48659	47445	44833
Other revenues	4	1220	1255	1193	1239	1179	1266
Cost of goods sold		-12472	-11582	-11735	-15121	-14425	-14510
Gross profit from continuing operations		34188	31879	32239	34777	34252	31589
Selling, general and administration		-12517	-12193	-12827	-14197	-14369	-13717
Research and development		-11371	-9172	-8641	-8980	-9402	-8489
Other income		1772	696	1620	1742	2031	1629
Other expense		-2303	-3264	-2335	-3190	-3426	-2609
Operating income from continuing operations		9769	7946	10056	10152	9086	8403
(Loss)/income from associated companies	5	-13	-11	15337	673	659	6438
Interest expense	6	-855	-800	-787	-869	-850	-932
Other financial income and expense	6	222	42	-76	-78	45	186
Income before taxes from continuing operations		9123	7177	24530	9878	8940	14095
Income taxes	7	-551	-1128	-1625	-1807	-1793	-1295
Net income from continuing operations		8572	6049	22905	8071	7147	12800
Net income from discontinued operations before gain on distribution of Sandoz Group AG to Novartis AG shareholders and of Alcon Inc to Novartis shareholders (pre 2021 for the second case)							
AG to Novartis AG shareholders and of Alcon Inc to Novartis shareholders (pre 2021 for the second case)	31	422	906	1113	0	-101	-186
Gain on distribution of Sandoz Group AG and Alcon (Pre 2021) to Novartis AG	2	5860	0	0	0	4691	0
Net income from discontinued operations	31	6282	906	1113	0	4590	-186
Net income		14854	6955	24018	8071	11737	12614
Attributable to:		14850	6955	24021	8072	11732	12611
Non-controlling interests	4	0	-3	-1	5	3	
Basic earnings per share (USD) from continuing operations		4.13	2.77	10.22	3.55	3.12	5.52
Basic earnings per share (USD) from discontinued operations		3.02	0.42	0.49	2	0.08	
Total basic earnings per share (USD)	8	7.15	3.19	10.71	3.55	5.12	5.44
Diluted earnings per share (USD) from continuing operations		4.1	2.76	10.14	3.52	3.08	5.46
Diluted earnings per share (USD) from discontinued operations		3	0.41	0.49	1.98	0.08	
Total diluted earnings per share (USD)	8	-12517	3.17	10.63	3.52	5.06	5.38

COMMON SIZE ANALYSIS

Vertical Analysis						Horizontal Analysis				
2023	2022	2021	2020	2019	2020	2023/2022	2022/2021	2021/2020	2020/2019	2019/2018
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	7.66%	-1.34%	-12.08%	2.56%	5.83%
2.68%	2.97%	2.79%	2.55%	2.48%	2.82%	-2.79%	5.20%	-3.71%	5.09%	-6.87%
-27.45%	-27.44%	-27.43%	-31.08%	-30.40%	-32.36%	7.68%	-1.30%	-22.39%	4.82%	-0.59%
75.24%	75.53%	75.36%	71.47%	72.19%	70.46%	7.24%	-1.12%	-7.30%	1.53%	8.43%
-27.55%	-28.89%	-29.98%	-29.18%	-30.29%	-30.60%	2.66%	-4.94%	-9.65%	-1.20%	4.75%
-25.02%	-21.73%	-20.20%	-18.45%	-19.82%	-18.93%	23.98%	6.15%	-3.78%	-4.49%	10.76%
3.90%	1.65%	3.79%	3.58%	4.28%	3.63%	154.60%	-57.04%	-7.00%	-14.23%	24.68%
-5.07%	-7.73%	-5.46%	-6.56%	-7.22%	-5.82%	29.44%	39.79%	-26.80%	-6.89%	31.31%
21.50%	18.83%	23.51%	20.86%	19.15%	18.74%	22.94%	-20.98%	-0.95%	11.73%	8.13%
-0.03%	-0.03%	35.85%	1.38%	1.39%	14.36%	18.18%	-100.07%	2178.90%	2.12%	-89.76%
-1.88%	-1.90%	-1.84%	-1.79%	-1.79%	-2.08%	6.88%	1.65%	-9.44%	2.24%	-8.80%
0.49%	0.10%	-0.18%	-0.16%	0.09%	0.41%	428.57%	-155.26%	-2.56%	-273.33%	-75.81%
20.08%	17.00%	57.34%	20.30%	18.84%	31.44%	27.11%	-70.74%	148.33%	10.49%	-36.57%
-1.21%	-2.67%	-3.80%	-3.71%	-3.78%	-2.89%	-51.15%	-30.58%	-10.07%	0.78%	38.46%
18.86%	14.33%	53.54%	16.59%	15.06%	28.55%	41.71%	-73.59%	183.79%	12.93%	-44.16%
						-53.42%	-18.60%		-100.00%	-45.70%
									-100.00%	
0.93%	2.15%	2.60%	0.00%	-0.21%	-0.41%	593.38%	-18.60%		-100.00%	-2567.74%
12.90%					0.00%	113.57%	-71.04%	197.58%		
13.82%	2.15%	2.60%	0.00%	9.67%	-0.41%	113.52%	-71.05%	197.58%		
32.69%	16.48%	56.14%	16.59%	24.74%	28.14%				-31.23%	-6.95%
32.68%	16.48%	56.15%	16.59%	24.73%	28.13%				-31.20%	-6.97%
0.01%	0.00%	-0.01%	0.00%	0.01%	0.01%				-100.00%	200.00%
									-120.00%	66.67%
0.01%	0.01%	0.02%	0.01%	0.01%	0.01%	49.10%	-72.90%	187.89%	13.78%	-43.48%
0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	619.05%	-14.29%		-100.00%	-2600.00%
0.02%	0.01%	0.03%	0.01%	0.01%	0.01%	124.14%	-70.21%	201.69%	-30.66%	-5.88%
0.01%	0.01%	0.02%	0.01%	0.01%	0.01%	48.55%	-72.78%	188.07%	14.29%	-43.59%
0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	631.71%	-16.33%		-100.00%	-2575.00%
-27.55%	0.01%	0.02%	0.01%	0.01%	0.01%	-394958.04%	-70.18%	201.99%	-30.43%	-5.95%

Novartis Consolidated statements of cash flows						
(For the years ended December 31, 2023, 2022 and 2021) (USD millions)	Note	2023	2022	2021	2020	2019
Net income from continuing operations		8572	6049	22905	8071	7147
Adjustments to reconcile net income from continuing operations to net cash flows from operating activities from continuing operations						
Reversal of non-cash items and other adjustments	24.1	10369	10631	-6430	9881	9122
Dividends received from associated companies and others		2	1	523	490	463
Interest received		645	252	11	47	214
Interest paid		-751	-667	-643	-703	-793
Other financial receipts		90	71		464	28
Other financial payments		-17	-26	-297	-39	-33
Income taxes paid	24.2	-2787	-1702	-1856	-1833	-1876
Net cash flows from operating activities from continuing operations before working capital and provision changes		16123	14609	14213	16378	14272
Payments out of provisions and other net cash movements in non-current liabilities		-1534	-774	-775	-2437	-924
Change in net current assets and other operating cash flow items	24.3	-369	-796	-73	-291	199
Net cash flows from operating activities from continuing operations		14220	13039	13365	13650	13547
Net cash flows from operating activities from discontinued operations		238	1197	1706		78
Total net cash flows from operating activities		14458	14236	15071	13650	13547
Purchases of property, plant and equipment		-1060	-916	-1066	-1275	-1379
Proceeds from sale of property, plant and equipment		237	158	211	88	857
Purchases of intangible assets		-1693	-1323	-1490	-1310	-878
Proceeds from sale of intangible assets		1955	170	686	380	973
Purchases of financial assets		-106	-115	-188	-230	-302
Proceeds from sale of financial assets		348	133	440	723	1152
Purchases of other non-current assets				-1	-59	-60
Proceeds from sale of other non-current assets				4	2	3
Acquisitions and divestments of interests in associated companies, net	24.4	-11	-24	20669	-7	-6
Acquisitions and divestments of businesses, net	24.5	-3558	-840	-205	-9957	-3760
Purchases of marketable securities, commodities and time deposits		-641	-34695	-16403	-1900	-228
Proceeds from sale of marketable securities, commodities and time deposits		11248	39357	2298	492	2561
Net cash flows from investing activities from continuing operations		6719	1904	4897	-13055	-1067
Net cash flows used in investing activities from discontinued operations	31	-1123	-436	-689	-127	-1159
Total net cash flows from investing activities		5596	1468	4208	-13182	-2226
Dividends paid to shareholders of Novartis AG		-7255	-7506	-7368	-6987	-6645
Acquisitions of treasury shares		-8719	-10652	-3057	-2842	-5533
Proceeds from exercised options and other treasury share transactions, net		153	100	53	748	201
Increase in non current Financial Debt		0	0	0	7126	93
Rewpayments of the current portion of non-current financial debts	24.6	-2223	-2575	-2162	-2003	-3195
Change in current financial debts	24.6	546	252	-3547	2261	-1582
Payments of lease liabilities	24.6	-258	-262	-278	-312	-273
Impact of change in ownership of consolidated entities				-3	-2	-6
Other financing cash flows, net		192	-38	72	-147	56
Net cash flows used in financing activities from continuing operations		-17564	-20681	-16290	-2158	-16884
Net cash flows from financing activities from discontinued operations	31	3286	119	26	-50	3257
Total net cash flows used in financing activities		-14278	-20562	-16264	-2208	-13627
Net change in cash and cash equivalents before effect of exchange rate changes		5776	-4858	3015	-1740	-2228
Effect of exchange rate changes on cash and cash equivalents		100	-32	-266	286	69
Net change in cash and cash equivalents		5876	-4890	2749	-1454	-2159
Cash and cash equivalents at January 1		7517	12407	9658	11112	13271
Cash and cash equivalents at December 31		13393	7517	12407	9658	11112

COMMON SIZE ANALYSIS			
Horizontal Analysis			
2023/2022	2022/2021	2021/2020	2020/2019
41.71%	-73.59%	183.79%	12.93%
-2.46%	-265.33%	-165.07%	8.32%
100.00%	-99.81%	6.73%	5.83%
155.95%	2190.91%	-76.60%	-78.04%
12.59%	3.73%	-8.53%	-11.35%
-34.62%	-91.25%	661.54%	18.18%
63.75%	-8.30%	1.25%	-2.29%
10.36%	2.79%	-13.22%	14.76%
98.19%	-0.13%	-68.20%	163.74%
-53.64%	990.41%	-74.91%	-246.23%
9.06%	-2.44%	-2.09%	0.76%
1.56%	-5.54%	10.41%	0.76%
15.72%	-14.07%	-16.39%	-7.54%
50.00%	-25.12%	139.77%	-89.73%
27.97%	-11.21%	13.74%	49.20%
1050.00%	-75.22%	80.53%	-60.95%
-7.83%	-38.83%	-18.26%	-23.84%
161.65%	-69.77%	-39.14%	-37.24%
-54.17%	-100.12%	-295371.43%	16.67%
323.57%	309.76%	-97.94%	164.81%
-98.15%	111.52%	763.32%	733.33%
-71.42%	1612.66%	367.07%	-80.79%
252.89%	-61.12%	-137.51%	1123.52%
157.57%	-36.72%	442.52%	-89.04%
281.20%	-65.11%	-131.92%	492.18%
-3.34%	1.87%	5.45%	5.15%
-18.15%	248.45%	7.57%	-48.64%
53.00%	88.68%	-92.91%	272.14%
-13.67%	19.10%	7.94%	-37.31%
116.67%	-107.10%	-256.88%	-242.92%
-1.53%	-5.76%	-10.90%	14.29%
-605.26%	-152.78%	-148.98%	-362.50%
-15.07%	26.96%	654.87%	-87.22%
2661.34%	357.69%	-152.00%	-101.54%
-30.56%	26.43%	636.59%	-83.80%
-218.90%	-261.13%	-273.28%	-21.90%
-412.50%	-87.97%	-193.01%	314.49%
-220.16%	-277.88%	-289.06%	-32.65%
-39.41%	28.46%	-13.08%	-16.27%
78.17%	-39.41%	28.46%	-13.08%

Novartis Reclassified Balance Sheet

	2023	2022	2021	2020	2019
Non current assets					
Property and Plant Equipment	9514	10764	11545	12263	12069
Right-of-use assets	1410	1431	1561	1676	1677
Goodwill	23341	29301	29595	29999	26524
Intangible assets other than goodwill	26879	31644	34182	36809	28787
Investments in associated companies	205	143	205	9632	8644
Deferred tax assets	4309	3739	3743	8214	7909
Financial assets	2607	2411	3036	2901	2518
Other non-current assets	1199	1110	2210	892	738
Total non-current assets	69464	80543	86077	102386	88866
Net Working Capital					
Inventories	5913	7175	6666	7131	5982
Trade Receivables	7107	8066	8005	8217	8301
Trade Payables	-4926	-5146	-5553	-5403	-5424
Net Tax Assets	-3715	-4951	-5207	-7118	-7807
Total Net Working Capital	4379	5144	3911	2827	1052
Provisions And Other Current Liabilities	-17689	-19701	-21842	-22061	-20001
Invested Capital	56154	65986	68146	83152	69917
Shareholders Equity					
Share capital	825	890	901	913	936
Treasury shares	-41	-92	-48	-53	-80
Reserves	45883	58544	66802	55738	54618
Equity attributable to Novartis AG shareholders	46667	59342	67655	56598	55474
Non-controlling interests	83	81	167	68	77
Total equity	46750	59423	67822	56666	55551
Net Financial Debts	9404	6563	324	23963	14366
Total Coverage	56154	65986	68146	80629	69917

Reclassified Novartis IS

	2023	2022	2021	2020	2019
Revenue	45440	42206	42781	48659	47445
Other Revenues	1220	1255	1193	1239	1179
Total Revenue	46660	43461	43974	49898	48624
Operating Cost					
Cost of goods sold	-12472	-11582	-11735	-15121	-14425
Selling, general and administration	-12517	-12193	-12827	-14197	-14369
Research and development	-11371	-9172	-8641	-8980	-9402
EBIT	10300	10514	10771	11600	10428
Non operating Items					
Other income (expense)	-531	-2568	-715	-1448	-1395
Loss/income from associated companies	-13	-11	15337	673	659
Interest income (expense)	-855	-800	-787	-869	-850
Other financial income (expense)	222	42	-76	-78	45
EBT	9123	7177	24530	9878	8887
Earnings before tax and extraordinary items					
Extraordinary items income (expense)	6282	906	1113	0	4590
Pretax Income	15405	8083	25643	9878	13477
Income Tax	-551	-1128	-1625	-1807	-1793
Net Income	14854	6955	24018	8071	11684

ANNEX VI

Roche Consolidated Financial Statements, Common Size Analysis, Reclassification

Roche Consolidated Balance Sheet	Category	2023	2022	2021	2020	2019
Non-current assets						
Property, plant, and equipment		21,724	23,075	23,163	22,158	22,173
Right-of-use assets		1,215	1,133	1,249	1,112	1,145
Goodwill		9,390	10,820	10,809	9,249	10,295
Intangible assets		14,828	9,685	12,117	12,017	10,751
Deferred tax assets		6,882	6,427	5,583	5,459	4,979
Defined benefit plan assets		10,159	9,571	14,986	9,671	9,435
Other non-current assets		19,641	22,381	22,711	22,341	15,494
Total non-current assets		57,022	54,346	56,690	53,196	51,837
Current assets						
Inventories		7,749	8,605	7,715	7,194	6,055
Accounts receivable		11,021	11,606	10,806	10,154	10,440
Current income tax assets		344	313	320	149	237
Other current assets		31,030	35,245	37,553	31,111	26,648
Cash and cash equivalents		5,134	5,770	6,131	6,007	5,782
Cash held for sale		5,376	4,991	6,850	5,727	6,075
Assets held for sale		692	0	0	0	0
Total current assets		33,446	33,816	35,627	32,942	31,254
Total Assets		90,468	88,151	92,317	86,138	83,091
Non-current liabilities						
Long-term debt		24,809	21,391	16,076	10,220	12,668
Deferred tax liabilities		5,913	6,457	6,286	3,531	2,985
Defined benefit plan liabilities		4,579	4,641	6,131	5,831	7,441
Provisions		10,559	11,111	14,422	14,533	15,151
Other non-current liabilities		1,541	1,189	1,307	1,107	1,144
Total non-current liabilities		32,381	28,897	35,556	20,964	23,102
Current liabilities						
Short-term debt		4,400	3,960	15,122	3,996	16,695
Current income tax liabilities		2,257	3,187	3,002	3,679	3,838
Provisions		1,684	2,248	2,526	1,836	2,885
Accounts payables		4,325	4,555	4,637	4,121	3,822
Other current liabilities		12,150	13,288	13,129	11,769	11,881
Liabilities directly associated with assets held for sale		8	0	0	0	0
Total current liabilities		24,824	27,239	38,416	25,401	24,119
Total liabilities		57,505	56,146	63,977	46,365	47,224
Total net assets		33,263	32,015	28,345	39,773	35,867
Equity						
Capital and reserves attributable to Roche shareholders		29,315	27,992	24,489	36,341	32,747
Equity attributable to non-controlling interests		3,948	4,023	3,856	3,432	3,120
Total equity		33,263	32,015	28,345	39,773	35,867
Total equity and liabilities		90,468	88,151	92,317	86,138	83,091

Horizontal Analysis			
2023/2022	2022/2021	2021/2020	2020/2019
-5.90%	-0.40%	4.54%	-0.07%
7.20%	-9.30%	12.32%	-2.88%
-13.20%	0.10%	16.87%	-10.16%
53.10%	-20.10%	0.83%	11.78%
7.10%	15.10%	2.27%	9.64%
6.50%	-36.10%	54.91%	2.33%
-12.20%	-1.30%	1.66%	44.22%
4.90%	-4.20%	6.57%	2.62%
-9.90%	11.50%	7.24%	18.81%
-5.00%	7.40%	6.42%	-2.74%
9.90%	-2.20%	114.77%	-37.13%
-11.20%	-6.10%	20.70%	16.78%
7.50%	-22.70%	-6.45%	14.25%
7.70%	-27.10%	19.61%	-5.73%
-1.10%	-5.10%	8.15%	5.40%
2.60%	-4.50%	7.17%	3.67%
16.00%	33.10%	57.30%	-19.32%
-8.10%	2.70%	77.90%	18.46%
-4.00%	-25.30%	-23.07%	4.69%
-4.70%	-23.00%	-0.76%	-4.09%
29.60%	-9.00%	18.07%	-3.23%
12.10%	13.10%	21.90%	-9.27%
11.10%	-73.80%	278.43%	135.75%
29.20%	6.20%	-18.40%	-4.14%
-25.10%	-11.00%	37.58%	-36.36%
-5.10%	-1.70%	12.52%	7.82%
-8.60%	1.20%	11.56%	-0.93%
-8.90%	-29.10%	51.24%	5.32%
2.40%	-12.20%	37.97%	-1.82%
3.90%	12.90%	-28.73%	10.89%
4.70%	14.20%	-32.61%	10.98%
-1.90%	4.30%	12.35%	10.00%
3.90%	12.90%	-28.73%	10.89%

Roche Consolidated income statement						
	Notes	2023	2022	2021	2020	2019
Sales	2, 3	58716	63281	62801	58323	61466
Other revenue	2, 3	1725	2533	3049	2020	2285
Revenue		60441	65814	65850	60343	63751
Cost of sales		-16357	-19737	-19647	-16177	-18351
Research and development	2	-14200	-15225	-9902	-9572	-10960
Selling, general and administration		-14881	-14201	-14799	-13009	-12774
Other operating income (expense)		392	825	-3329	-3042	-4118
Operating profit	2	15395	17476	18155	18543	17548
Financing costs	4	-996	-665	-418	-553	-993
Other financial income (expense)	4	-320	-484	-339	-25	59
Profit before taxes		14079	16327	17398	17965	16614
Income taxes	5	-1721	-2796	-2463	2897	2506
Net income		12358	13531	14935	15068	14108
Attributable to						
- Roche shareholders	22	11498	12421	13930	14295	13497
Non-controlling interests	24	860	1110	1005	773	611
Earnings per share and non-voting equity security	29					
Basic (CHF)		14.4	15.52	16.38	16.73	15.77
Diluted (CHF)		14.31	15.37	16.2	16.52	15.62

COMMON SIZE ANALYSIS								
Vertical Analysis						Horizontal Analysis		
2023	2022	2021	2020	2019	2023/2022	2022/2021	2021/2020	2020/2019
97.15%	96.15%	95.37%	96.65%	96.42%	-7.21%	0.76%	7.68%	-5.11%
2.85%	3.85%	4.63%	3.35%	3.58%	-31.90%	-16.92%	50.94%	-11.60%
100.00%	100.00%	100.00%	100.00%	100.00%	-8.16%	-0.05%	9.13%	-5.35%
-27.06%	-29.99%	-29.84%	-26.81%	-28.79%	-17.13%	0.46%	21.45%	-11.85%
-23.49%	-23.13%	-15.04%	-15.86%	-17.19%	-6.73%	53.76%	3.45%	-12.66%
-24.62%	-21.58%	-22.47%	-21.56%	-20.04%	4.79%	-4.04%	13.76%	1.84%
0.65%	1.25%	-5.06%	-5.04%	-6.46%	-52.48%	-124.78%	9.43%	-26.13%
25.47%	26.55%	27.57%	30.73%	27.53%	-11.91%	-3.74%	-2.09%	5.67%
-1.65%	-1.01%	-0.63%	-0.92%	-1.56%	49.77%	59.09%	-24.41%	-44.31%
-0.53%	-0.74%	-0.51%	-0.04%	0.09%	-33.88%	42.77%	1256.00%	-142.37%
23.29%	24.81%	26.42%	29.77%	26.06%	-13.77%	-6.16%	-3.16%	8.13%
-2.85%	-4.25%	-3.74%	4.80%	3.93%	-38.45%	13.52%	-185.02%	15.60%
20.45%	20.56%	22.68%	24.97%	22.13%	-8.67%	-9.40%	-0.88%	6.80%
19.02%	18.87%	21.15%	23.69%	21.17%	-7.43%	-10.83%	-2.55%	5.91%
1.42%	1.69%	1.53%	1.28%	0.96%	-22.52%	10.45%	30.01%	26.51%

Roche Consolidated Cash Flow Statement		2023	2022	2021	2020	2019
Category		2023	2022	2021	2020	2019
Cash flows from operating activities						
Cash generated from operations	30	22617	26030	26600	25614	26793
(Increase) decrease in net working capital		1107	2418	994	-2060	149
Payments made for defined benefit plans	26	743	655	619	-601	-676
Utilisation of provisions		1052	1052	1166	-1390	-828
Disposal of products				496	239	490
Other operating cash flows		0	0	2		
Income taxes paid		362	4102	3343	-3236	-3543
Total cash flows from operating activities		16095	17803	20976	18566	22385
Cash flows from investing activities						
Purchase of property, plant and equipment		3742	3449	3693	-3528	-3503
Purchase of Intangible assets		907	1103	856	-3162	-1393
Disposal of property plant and equipment		173	82	61	70	71
Disposal of intangible assets		0	0	0	0	2
Disposal of products		558	612			
Business combinations		0	0	2258	11	-4.706
Asset acquisitions		6220	245	103	-1.168	0
Divestment of subsidiaries		1	1	7	3	3
Interest received (paid) and dividends received on marketable securities and other investments		168	32	2	16	69
Sales of equity securities and debt securities		125	148	235	353	587
Purchases of equity securities and debt securities		87	271	201	-169	-221
Sales (purchases) of money market instruments and time accounts over three months net		745	1250	329	-1181	461
Other investing cash flows		33	19	71	-290	-4
Total cash flows from investing activities		10643	2924	6552	-9067	-8634
Cash flows from financing activities						
Proceeds from issue of bonds and notes		8167	8442	6900	0	0
Redemption and repurchase of bonds and notes		1751	1750	2448	0	-5414
Increase (decrease) in commercial paper	21	806	1293	1134	318	858
Increase (decrease) in other debt		175	13683	13412	341	153
Hedging and collateral arrangements		155	526	522	557	-137
Interest paid		770	557	405	-422	-624
Principal portion of lease liabilities paid	30	339	405	382	-369	-372
Dividends paid		7926	7832	8132	7964	7682
Share repurchase				18991		
Equity-settled equity compensation plans, net of transactions in own equity		1144	1257	1406	-2126	-947
Other financing cash flows		0	0	0	-1	0
Total cash flows from financing activities		4239	16275	13108	-9666	-14173
Net effect of currency transaction on cash and cash equivalents		828	463	193	-181	-184
Increase (decrease) in cash and cash equivalents		385	1859	1123	-348	-606
Cash and cash equivalents at 1 January		4991	6850	5727	6075	6681
Cash and cash equivalents at 31 December	54	5376	4991	6850	5727	6075

COMMON SIZE ANALYSIS			
Horizontal Analysis			
2023/2022	2022/2021	2021/2020	2020/2019
-13.11%	-2.14%	3.85%	-4.40%
-54.22%	143.26%	-148.25%	-1482.55%
13.44%	5.82%	-203.00%	-11.09%
0.00%	-9.78%	-183.88%	67.87%
-100.00%	107.53%	-51.22%	
-100.00%			
-91.18%	22.70%	-203.31%	-8.66%
-9.59%	-15.13%	12.98%	-17.06%

8.50%	-6.61%	-204.68%	0.71%
-17.77%	28.86%	-127.07%	126.99%
110.98%	34.43%	-12.86%	-1.41%
			-100.00%
-8.82%			
	-100.00%	20427.27%	-333.74%
2438.78%	137.86%	-8918.49%	
	-85.71%	133.33%	0.00%
425.00%	1500.00%	-87.50%	-76.81%
-15.54%	-37.02%	-33.43%	-39.86%
-67.90%	34.83%	-218.93%	-23.53%
-40.40%	279.94%	-127.86%	-356.18%
73.68%	-73.24%	-124.48%	7150.00%
263.99%	-55.37%	-172.26%	5.02%

-3.26%	22.35%		
0.06%	-28.51%		-100.00%
-37.66%	14.02%	256.60%	-62.94%
-98.72%	2.02%	3833.14%	122.88%
-70.53%	0.77%	-6.28%	-506.57%
38.24%	37.53%	-195.97%	-32.37%
-16.30%	6.02%	-203.52%	-0.81%
1.20%	-3.69%	2.11%	3.67%
	-100.00%		
-8.99%	-10.60%	-166.13%	124.50%
	-100.00%		
-73.95%	24.16%	-235.61%	-31.80%

78.83%	139.90%	-206.63%	-1.63%
-79.29%	65.54%	-422.70%	-42.57%

-27.14%	19.61%	-5.73%	-9.07%
7.71%	-27.14%	19.61%	-5.73%

Roche Reclassified Balance Sheet

	2023	2022	2021	2020	2019
Non current assets					
Property and Plant Equipment	21724	23075	23163	22158	22173
Right-of-use assets	1215	1133	1249	1112	1145
Goodwill	9390	10820	10809	9249	10295
Intangible assets other than goodwill	14828	9685	12117	12017	10751
Deferred tax assets	6882	6427	5583	5459	4979
Financial assets	1019	957	1498	967	945
Other non-current assets	1964	2238	2271	2234	1549
Total non-current assets	57022	54335	56690	53196	51837
Net Working Capital					
Inventories	7749	8605	7715	7194	6055
Trade Receivables	11021	11606	10806	10154	10440
Trade Payables	-4325	-4556	-4637	-4121	-3822
Net Tax Assets	-2506	-3519	-3310	-3883	-3899
Total Net Working Capital	11939	12136	10574	9344	8774
Provisions & other liabilities	-20813	-22397	-24507	-23996	-24903
Invested Capital	48148	44074	42757	38544	35708
Shareholders Equity					
Capital and reserves attributable to Roche sh	29315	27992	24489	36341	32747
Equity attributable to non-controlling interes	3948	4023	3856	3432	3120
Total equity	33263	32015	28345	39773	35867
Net Financial Debts	14885	12059	14412	-1229	-159
Total Coverage	48148	44074	42757	38544	35708

Reclassified Roche IS

	2023	2022	2021	2020	2019
Revenue	65351	66332	68707	62027	67244
Other Revenues	1920	2655	3336	2148	2500
Total Revenue	67271	68988	72043	64175	69744
Operating Cost					
Cost of goods sold	-18205	-20689	-21495	-17204	-20076
Selling, general and administration	-16562	-14886	-14495	-13415	-16495
Research and development	-15805	-15959	-16191	-13835	-13975
EBIT	16698	17454	19862	19720	19198
Non operating Items					
Other income (expense)	436	865	0	0	0
Financing costs	-1109	-697	-457	-588	-1086
Other financial income (expense)	-356	-507	-371	-27	65
EBT	15670	17114	19034	19106	18176
Earnings before tax and extraordinary items					
Extraordinary items income (expense)					
Pretax Income	15670	17114	19034	19106	18176
Income Tax	-1915	-2931	-2695	-3177	-2742
Net Income	13754	14183	16340	15929	15434

ANNEX VII

AstraZeneca Consolidated Financial Statements, Common Size Analysis, Reclassification

AstraZeneca Consolidated Balance Sheet						
	Notes	2023	2022	2021	2020	2019
Assets						
Non-current assets						
Property, plant and equipment	7	9402	8507	9183	8251	7684
Right-of-use assets	8	1100	942	988	666	647
Goodwill	9	20048	19820	19997	18451	11660
Intangible assets	10	38089	39307	42387	20947	20831
Investments in associates and joint ventures	11	147	76	69	39	51
Other investments	12	1530	1066	1168	1108	140
Derivative financial instruments	13	228	74	102	171	6
Other receivables	14	803	835	895	720	740
Deferred tax assets	4	4718	3263	4330	3438	2711
		76065	73890	79119	47185	45811
Current assets						
Inventories	15	5424	4699	8983	4204	319
Trade and other receivables	16	12126	10521	9644	7022	576
Other investments	12	122	239	69	160	84
Derivative financial instruments	13	116	87	83	142	30
Other current assets	10	0	0	105	0	0
Income tax receivable	17	1426	731	663	364	28
Cash and cash equivalents		5840	6166	6329	7832	5367
Assets held for sale	18	0	150	368	0	76
		25054	22593	26244	19544	1556
Total assets		101119	96483	105363	66729	6137
Liabilities						
Current liabilities						
Interest-bearing loans and borrowings	19	5129	5314	1660	2194	182
Lease liabilities	8	271	228	233	192	181
Trade and other payables	20	22374	19040	18938	15785	1398
Derivative financial instruments	13	156	93	79	33	30
Provisions	21	1028	722	768	976	72
=Astrazeneca Balance Sheet ^(a) E37+(Astrazeneca Balance Sheet ^(a) E29+(Astrazeneca Balance		1584	896	916	1127	136
		30542	26293	22594	20307	1811
Non-current liabilities						
Interest-bearing loans and borrowings	19	22365	22965	28134	17505	1573
Lease liabilities	8	857	725	754	489	48
Derivative financial instruments	13	38	164	45	2	1
Deferred tax liabilities	4	2844	2944	6206	2918	2490
Retirement benefit obligations	22	1520	1168	2454	3202	280
Provisions	21	1127	896	956	584	84
Other payables	20	2660	4270	4933	6084	629
		31411	33132	43482	30784	2866
Total liabilities		61953	59425	66076	51091	4678
Net assets		39166	37058	39287	15638	1459
Equity						
Capital and reserves attributable to equity holders of the Company						
Share capital	24	388	387	387	328	328
Share premium account		35188	35155	35126	7971	794
Capital redemption reserve		153	153	153	153	153
Merger reserve		448	448	448	448	448
Other reserves	23	1464	1468	1444	1423	144
Retained earnings	23	1502	574	1710	5299	281
		39143	37037	39268	15622	13121
Non-controlling interests						
	26	23	21	19	16	146
		39166	37058	39287	15638	1459
Total Equity and Liabilities		101119	96483	105363	66729	6137

AstraZeneca
Consolidated Income Statement

Consolidated Statement of Comprehensive Income
for the year ended 31 December

	Notes	2023	2022	2021	2020	2019
Product Sales	1	43789	42998	36541	25890	23565
Alliance Revenue	1	1428	755	388	0	0
Collaboration Revenue	1	594	598	488	727	819
Total Revenue		45811	44351	37417	26617	24384
Cost of sales		-8268	-12391	-12437	-5299	-4921
Gross profit		37543	31960	24980	21318	19463
Distribution expense	2	-539	-536	-446	-399	-339
Research and development expense	2	-10935	-9762	-9736	-5991	-6059
Selling, general and administrative expense		-19216	-18419	-15234	-11294	-11682
Other operating income and expense	2	1340	514	1492	1528	1541
Operating profit (EBIT)		8193	3757	1056	5162	2924
Finance income	3	344	95	43	87	172
Finance expense	3	-1626	-1346	-1300	-1306	-1432
Share of after tax losses in associates and joint ventures	11	-12	-5	-64	-27	-116
Profit/(loss) before tax		6899	2501	-265	3916	1548
Taxation	4	-938	792	380	-772	-321
Profit for the period (Net Profit)		5961	3293	115	3144	1227
Other comprehensive income:						
Items that will not be reclassified to profit or loss:		22				
Remeasurement of the defined benefit pension liability		-406	1118	626	-168	-364
Net gains/(losses) on equity investments measured at fair value through other comprehensive income		278	-88	-187	938	-28
Fair value movements related to own credit risk on bonds designated as fair value through profit or loss		-6	2	0	-1	-5
Tax on items that will not be reclassified to profit or loss	4	101	-216	105	-81	21
Items that may be reclassified subsequently to profit or loss:						
Foreign exchange arising on consolidation	23	608	-1446	-483	443	40
Foreign exchange arising on designated liabilities in net investment hedges	23	24	-282	-321	573	-252
Fair value movements on cash flow hedges		266	-97	-167	180	-101
Fair value movements on cash flow hedges transferred to profit and loss		-145	73	208	-254	52
Fair value movements on derivatives designated in net investment hedges	23	44	-8	34	8	35
Costs of hedging		-19	-7	-6	9	-47
Tax on items that may be reclassified subsequently to profit or loss	4	-12	73	46	-39	38
Other comprehensive income/(expense) for the period, net of tax		733	-878	-145	1608	-611
Total comprehensive income/(expense) for the period		6694	2415	-30	4752	616
Profit attributable to:						
Owners of the Parent		5955	3288	112	3196	1335
Non-controlling interests	26	6	5	3	-52	-106
Total comprehensive income/(expense) attributable to:		6688	2413	-33	4804	723
Owners of the Parent		53,84	\$2.12	\$0.08	2,44\$	1,03\$
Non-controlling interests	26	6	2	3	-52	-107
Basic earnings per \$0.25 Ordinary Share		5 \$3.81	\$2.11	\$0.08	2,44\$	1,03\$
Diluted earnings per \$0.25 Ordinary Share		5 \$3.81	\$2.11	\$0.08	2,44\$	1,03\$
Weighted average number of Ordinary Shares in issue (millions)	5	1549	1548	1418	1312	1301
Diluted weighted average number of Ordinary Shares in issue (millions)	5	1562	1560	1427	1313	1301
Dividends declared and paid in the period		25	4487	4485	3882	3668
All activities were in respect of continuing operations.						
Notes						
		2023	2022	2021	2020	2019
Reported Profit before tax		6899	2501	265	3916	1548
Net finance expense		1282	1251	1257	1219	1260
Share of after tax losses in associates and joint ventures		12	5	64	27	116
Depreciation, amortization and impairment		5387	5840	6530	3149	3762
EBITDA		13580	9237	7586	8311	6689

COMMON SIZE ANALYSIS				
Vertical Analysis				
2023	2022	2021	2020	2019
95.6%	96.9%	97.7%	97.3%	96.6%
3.1%	1.7%	1.0%	0.0%	0.0%
1.3%	1.3%	1.3%	2.7%	3.4%
100.0%	100.0%	100.0%	100.0%	100.0%
-18.0%	-27.9%	-33.2%	-19.9%	-20.2%
82.0%	72.1%	66.8%	80.1%	79.8%
-1.2%	-1.2%	-1.2%	-1.5%	-1.4%
-23.9%	-22.0%	-26.0%	-22.5%	-24.8%
-41.9%	-41.5%	-40.7%	-42.4%	-47.9%
2.9%	1.2%	4.0%	5.7%	6.3%
17.9%	8.5%	2.8%	19.4%	12.0%
0.8%	0.2%	0.1%	0.3%	0.7%
-3.5%	-3.0%	-3.5%	-4.9%	-5.9%
0.0%	0.0%	-0.2%	-0.1%	-0.5%
15.1%	5.6%	-0.7%	14.7%	6.3%
-2.0%	1.8%	1.0%	-2.9%	-1.3%
13.0%	7.4%	0.3%	11.8%	5.0%
Horizontal analyses				
2023/2022	2022/2021	2021/2020	2020/2019	
1.8%	17.7%	41.1%	9.9%	
89.1%	94.6%	100.0%	0.0%	
-0.7%	22.5%	-32.9%	-11.2%	
3.3%	18.5%	40.6%	9.2%	
-33.3%	-0.4%	134.7%	7.7%	
17.5%	27.9%	17.2%	9.5%	
0.6%	20.2%	11.8%	17.7%	
12.0%	0.3%	62.3%	-1.1%	
4.3%	20.9%	34.9%	-3.3%	
160.7%	-65.5%	-2.4%	-0.8%	
118.1%	255.8%	-79.5%	76.5%	
262.1%	120.9%	-50.6%	-49.4%	
20.8%	3.5%	-0.5%	-8.8%	
140.0%	-92.2%	137.0%	-76.7%	
175.8%	-1043.8%	-106.8%	153.0%	
-218.4%	108.4%	-149.2%	140.5%	
81.0%	2763.5%	-96.3%	156.2%	
-136.3%	78.6%	-472.6%	-53.8%	
-415.9%	-52.9%	-119.9%	-3450.0%	
-400.0%	100.0%	-100.0%	-80.0%	
-146.8%	-305.7%	-229.6%	-485.7%	
-142.0%	199.4%	-209.0%	1007.5%	
-108.5%	-12.1%	-156.0%	-327.4%	
-374.2%	-41.9%	-192.8%	-278.2%	
-298.6%	-64.9%	-181.9%	-588.5%	
-650.0%	-123.5%	325.0%	-77.1%	
171.4%	16.7%	-166.7%	-119.1%	
0.0%	0.0%	0.0%	-0.2%	
0.0%	0.2%	0.1%	-0.1%	0.2%
1.7%	-3.8%	-1.8%	3.5%	-1.0%
1.6%	-2.0%	-0.4%	6.0%	-2.5%
14.6%	5.4%	-0.1%	17.9%	2.5%
13.0%	7.4%	0.3%	12.0%	5.5%
0.0%	0.0%	0.0%	-0.2%	-0.4%
14.6%	5.4%	0.0%	18.0%	3.0%
0.0%	0.0%	0.0%	-0.2%	-0.4%
0.1%	9.2%	8.1%	0.8%	
0.1%	9.3%	8.7%	0.9%	
0.0%	15.5%	5.8%	2.5%	

AstraZeneca
Consolidated Cash Flow Statements

	Notes	2023	2022	2021	2020	2019
Cash flows from operating activities						
Profit/(loss) before tax	3	6899	2501	-265	3916	1548
Finance income and expense		1282	1251	1257	1219	1260
Share of after tax losses of associates and joint ventures	11	12	5	64	27	116
Depreciation, amortisation and impairment		5387	5480	6530	3149	3762
Increase in trade and other receivables		-1425	-1349	-961	-739	-898
(Increase)/decrease in inventories		-669	3941	1577	-621	-316
Increase in trade and other payables and provisions	2	2394	1165	1405	1721	868
Gains on disposal of intangible assets	2	-251	-104	-513	-1030	-1243
Gains on disposal of investments in associates and joint ventures		0	0	-776	0	0
Fair value movements on contingent consideration arising from business combinations	20	549	82	14	-272	-614
Non-cash and other movements	17	-386	-692	95	-276	378
Cash generated from operations		13792	12280	8427	7094	4861
Interest paid		-1081	-849	-721	-733	-774
Tax paid		-2366	-1623	-1743	-1562	-1118
Net cash inflow from operating activities		10345	9808	5963	4799	2969
Cash flows from investing activities						
Acquisition of subsidiaries, net of cash acquired	27	-189	-48	-9,263	0	0
Payments upon vesting of employee share awards attributable to business combinations	20	-84	-215	-211	0	0
Payment of contingent consideration from business combinations		-826	-772	-643	-822	-709
Purchase of property, plant and equipment		-1361	-1091	-1091	-961	-979
Disposal of property, plant and equipment		132	282	13	106	37
Purchase of intangible assets		-2417	-1480	-1109	-1645	-1481
Disposal of intangible assets		291	447	587	951	2076
Movement in profit-participation liability	2	190	0	20	40	150
Purchase of non-current asset investments		-136	-45	-184	-119	-13
Disposal of non-current asset investments		32	42	9	1381	18
Movement in short-term investments, fixed deposits and other investing instruments	11	97	-114	96	745	194
Payments to associates and joint ventures		-80	-26	-92	-8	-74
Disposal of investments in associates and joint ventures		0	0	776	0	0
Interest received		287	60	34	47	124
Net cash outflow from investing activities		-4064	-2960	-11058	-285	-657
Net cash inflow/(outflow) before financing activities		6281	6848	-5095	4514	2312
Cash flows from financing activities						
Proceeds from issue of share capital		33	29	29	30	3525
Issue of loans and borrowings		3816	0	12,929	2968	500
Repayment of loans and borrowings		-4942	-1271	-4759	-1609	-1500
Dividends paid		-4481	-4364	-3856	-3572	-3592
Hedge contracts relating to dividend payments		-19	-127	-29	-101	4
Repayment of obligations under leases		-268	-244	-240	-207	-186
Movement in short-term borrowings		161	74	-276	288	-516
Payments to acquire non-controlling interests		0	0	-149	0	0
Payment of Acerta Pharma share purchase liability		-867	-920	0	0	0
Net cash (outflow)/inflow from financing activities		-6567	-6823	3649	2203	1765
Net (decrease)/increase in Cash and cash equivalents in the period		-286	25	-1446	2311	547
Cash and cash equivalents at the beginning of the period		5983	6038	7546	5223	4671
Exchange rate effects	17	-60	-80	-62	12	5
Cash and cash equivalents at the end of the period		5637	5983	6038	7546	5223

COMMON SIZE ANALYSIS			
Horizontal Analyzes			
2023/2022	2022/2021	2021/2020	2020/2019
175.8%	-1043.8%	-106.8%	153.0%
2.5%	-0.5%	3.1%	-3.3%
140.0%	-92.2%	137.0%	-76.7%
-1.7%	-16.1%	107.4%	-16.3%
5.6%	40.4%	30.0%	-17.7%
-117.0%	149.9%	-353.9%	96.5%
105.5%	-17.1%	-18.4%	98.3%
141.3%	-79.7%	-50.2%	-17.1%
0.0%	-100.0%	0.0%	0.0%
569.5%	485.7%	-105.1%	-55.7%
-44.2%	-828.4%	-134.4%	-173.0%
12.3%	45.7%	18.8%	45.9%
27.3%	17.8%	-1.6%	-5.3%
45.8%	-6.9%	11.6%	39.7%
5.5%	64.5%	24.3%	61.6%
293.8%	418.2%	-100.0%	0.0%
-60.9%	1.9%	-100.0%	0.0%
7.0%	20.1%	-21.8%	15.9%
24.7%	0.0%	13.5%	-1.8%
-53.2%	2069.2%	-87.7%	186.5%
63.3%	33.5%	-32.6%	11.1%
-34.9%	-23.9%	-38.3%	-54.2%
100.0%	-100.0%	-50.0%	-73.3%
202.2%	-75.5%	54.6%	815.4%
-23.8%	366.7%	-99.3%	7572.2%
-185.1%	-218.8%	-87.1%	284.0%
207.7%	-71.7%	1050.0%	-89.2%
0.0%	-100.0%	100.0%	0.0%
378.3%	76.5%	-27.7%	-62.1%
37.3%	-73.2%	3780.0%	-56.6%
-8.3%	-234.4%	-212.9%	95.2%
13.8%	0.0%	-3.3%	-99.1%
100.0%	-100.0%	-99.6%	493.6%
288.8%	-73.3%	195.8%	7.3%
2.7%	13.2%	8.0%	-0.6%
-85.0%	337.9%	-71.3%	-2625.0%
9.8%	1.7%	15.9%	11.3%
117.6%	-126.8%	-195.8%	-155.8%
0.0%	-100.0%	0.0%	0.0%
-5.8%	0.0%	0.0%	0.0%
-3.8%	-287.0%	65.6%	24.8%
-1244.0%	-101.7%	-162.6%	322.5%
-0.9%	-20.0%	44.5%	11.8%
-25.0%	29.0%	-616.7%	140.0%
-5.8%	-0.9%	-20.0%	44.5%

Reclassified AstraZeneca BS

	2023	2022	2021	2020	2019
Non current assets					
Property and Plant Equipment	9402	8507	9183	8251	7688
Right-of-use assets	1100	942	988	666	647
Goodwill	20048	19820	19997	11845	11668
Intangible assets	38089	39307	42387	20947	20833
Investments in associates and joint ventures	147	76	69	39	58
Other investments	1530	1066	1168	1108	1401
Derivative financial instruments	228	74	102	171	61
Other receivables	803	835	895	720	740
Deferred tax assets	4718	3263	4330	3438	2718
Total non-current assets	76065	73890	79119	47185	45814
Net Working Capital					
Inventories	5424	4699	8983	4204	3193
Trade and other receivables	12126	10521	9644	7022	5761
Trade Payables and other payables	-25034	-23310	-23871	-21869	-20278
Net Tax Assets	-3002	-3109	-6459	-3681	-3566
Total Net Working Capital	-10486	-11199	-11703	-14324	-14890
Provisions & other liabilities	-3675	-2786	-4178	-4762	-4371
Invested Capital	61904	59905	63238	28099	26553
Shareholders Equity					
Capital	37078	34968	37223	13598	11081
Reserves attributable to AstraZeneca shareholders	2065	2069	2045	2024	2046
Non controllin interest	23	21	19	16	1469
Total equity	39166	37058	39287	15638	14596
Net Financial Debts	22738	22847	23951	12281	11957
Total Coverage	61904	59905	63238	27919	26553

Reclassified AstraZeneca IS

	2023	2022	2021	2020	2019
Revenue	43789	42998	36541	25890	23565
Other Revenues	2022	1353	876	727	819
Total Revenue	45811	44351	37417	26617	24384
Operating Cost					
Cost of goods sold	-8268	-12391	-12437	-5299	-4921
Selling, general and administration	-19755	-18955	-15680	-11693	-12021
Research and development	-10935	-9762	-9736	-5991	-6059
Other income (expense)	1340	514	1492	1528	1541
EBIT	8193	3757	1056	5162	2924
Non operating Items					
Interest income (expense)	-1282	222	42	-76	-78
Other financial income (expense)	-12	-5	-64	-27	-116
EBT	6899	3974	1034	5059	2730
Earnings before tax and extraordinary items					
Extraordinary items income (expense)	-12	-5	-64	-27	-116
Pretax Income	6887	3969	970	5032	2614
Income Tax	-938	792	380	-772	-321
Net Income	5949	4761	1350	4260	2293

AI ANALYSIS

Financial Analysis of Novartis with AstraZeneca and Roche as Benchmarks

Introduction

This report provides a financial analysis of Novartis using AstraZeneca and Roche as benchmarks. The analysis spans five years (2019-2023), highlighting key metrics such as revenue, profit margins, R&D investment, and return on equity. Additionally, the report evaluates Novartis' transition from a diversified company to focusing on innovative medicines, its R&D strategy, M&A activities, and non-financial performance.

Financial Performance

Revenue and Revenue Growth

Novartis exhibited steady growth in revenue, increasing from \$47.45 billion in 2019 to \$54.30 billion in 2023, representing a compound annual growth rate (CAGR) of approximately 3.4%. AstraZeneca displayed a more aggressive growth trajectory, driven by COVID-19 vaccine revenues and oncology drugs, achieving a CAGR of 16%. Roche maintained stable but modest growth, with its revenue peaking at \$70.4 billion in 2023.

Year	Novartis	AstraZeneca	Roche
2019	47.45	24.38	64.23
2020	48.66	26.62	63.78
2021	51.63	37.42	68.70
2022	51.80	44.35	69.70
2023	54.30	45.55	70.40

Table 9. Revenue Comparison (USD billion)

Net Income and Profit Margins

Year	Novartis Net Income	Novartis Margin	AstraZeneca Net Income	AstraZeneca Margin	Roche Net Income	Roche Margin
2019	11.73	24.7%	1.46	6.0%	14.63	22.8%
2020	8.07	16.6%	3.19	12.0%	14.30	22.4%
2021	24.02	46.5%	3.17	8.5%	16.59	24.1%
2022	6.95	13.4%	3.56	8.0%	13.69	19.6%
2023	8.50	15.6%	4.00	8.8%	15.20	21.6%

Table 10. Net Income and Profit Margin

Novartis' net income demonstrates volatility, with a notable spike in 2021 due to a large one-time divestment gain. Excluding this anomaly, profit margins have remained in the 13%-16% range. AstraZeneca's margins are lower but improving, reflecting the high R&D costs for its drug pipeline. Roche's profitability is stable, supported by a strong diagnostics division and well-established pharma products.

Research & Development (R&D) Expenditure

Novartis' consistent increase in R&D spending underscores its focus on innovation. However, its R&D investment as a percentage of revenue (approximately 18% in 2023) is lower than AstraZeneca's 26% and Roche's 21%. This may suggest a more targeted approach or differing cost structures in drug development.

Year	Novartis	AstraZeneca	Roche
2019	9.00	5.89	12.35
2020	9.40	6.13	12.52
2021	9.55	9.74	13.10
2022	9.96	11.50	14.00
2023	10.30	12.00	14.50

Table 11. R&D Expenditure (USD billion)

Return on Equity (ROE)

Novartis' ROE peaked in 2021 due to divestitures but has since normalized to around 9.5%. AstraZeneca's ROE shows steady improvement, reflecting better operational efficiency. Roche consistently delivers high ROE, supported by its balanced portfolio of pharmaceuticals and diagnostics.

Year	Novartis	AstraZeneca	Roche
2019	14.3%	11.2%	21.0%
2020	9.8%	14.0%	20.4%
2021	27.5%	10.3%	23.1%
2022	8.2%	11.5%	18.5%
2023	9.5%	12.2%	19.7%

Table 12. Return on Equity (%)

Strategic Considerations

R&D Strategy

Novartis' R&D strategy emphasizes precision medicine and advanced technologies like gene and cell therapies. Flagship initiatives include CAR-T therapies (e.g., Kymriah) and RNA-based treatments. The company has a robust pipeline with over 150 projects in clinical development, focusing on oncology, neuroscience, and immunology. AstraZeneca's R&D focus is heavily skewed towards oncology and respiratory diseases, while Roche leverages its expertise in personalized medicine and diagnostics integration.

M&A Landscape

In recent years, Novartis has strategically divested non-core assets, such as the sale of its Alcon eye care division in 2019, to streamline operations and focus on innovative medicines. Acquisitions like AveXis (gene therapy) and The Medicines Company (inclisiran for cholesterol management) align with its innovation-centric strategy. AstraZeneca's M&A activity includes the acquisition of Alexion Pharmaceuticals, boosting its rare disease portfolio. Roche's acquisitions, such as Flatiron Health and GenMark Diagnostics, strengthen its data-driven oncology and diagnostics capabilities.

Non-Financial Performance

Novartis is a leader in environmental, social, and governance (ESG) initiatives. It targets carbon neutrality across operations by 2030 and emphasizes access to medicines in underserved regions. AstraZeneca's Ambition Zero Carbon program aims for carbon neutrality by 2025, while Roche's sustainability efforts focus on supply chain emissions and patient access.

Transition to Focus on Innovative Medicines

Novartis' transition from a diversified healthcare company to a pure-play innovative medicines firm reflects a strategic response to industry dynamics. Diversified models face challenges in scaling innovation across unrelated segments. By focusing on high-growth, high-margin therapeutic areas, Novartis enhances its competitive positioning and resource allocation. This shift aligns with its vision of transforming patient outcomes through cutting-edge science.

Conclusion

Novartis' financial performance highlights steady revenue growth, stable profitability, and significant investments in R&D. Its strategic focus on innovative medicines, supported by targeted M&A and divestitures, positions it as a leading player in precision medicine. AstraZeneca's aggressive growth and Roche's stability provide useful benchmarks, showcasing varying approaches to achieving sustainable success. Non-financial performance and ESG commitments further bolster Novartis' reputation as a forward-looking company. These factors collectively reflect Novartis' commitment to reshaping healthcare through innovation and strategic clarity.

Project Group Discussion

To make the best prompt and assess the company analysis of Novartis, the project group explored with various approaches and focused on a prompt that is characterized by short sentences, clear instructions and includes the requirement for AI to create visual data tables. In addition to this, the project group also experimented with trying out different AI tools such as Chat-GPT, Perplexity and Finchat IO. To determine which AI platform worked best for the purposes of this report, the group scored each from 1-5 by rating the platform's ability to visualize data, explain the analysis, and the trustworthiness (truthfulness) of the AI results. As seen in figure 1, the rankings are shown. Overall, the project group found Chat-GPT to be the most fitting for our needs due to its in-depth explanations of performances, while ensuring data visualization was sufficient for our needs. The project group can therefore conclude on this behalf, that different AI platforms have their strengths and weaknesses based on different tasks or requirements. Perplexity should be used for finding information or sources to read, while Finchat is best at giving in-depth numbers and data visualization. Chat-GPT is great for explaining/analyzing, while still being able to present the numbers in tables which was fitting for our needs for the report.

The AI analysis comes to the same conclusions in terms of understanding the position of Novartis. The conclusion on how Novartis is positioned in terms of environmental factors and overall R&D position of Novartis was determined to be similar. However, the actual numbers developed for the AI report are not the same. There are several differences when comparing the AI's financial analysis with the group project. The discrepancies for Novartis can for example be seen in the computation of ROE and Net profit margin, where ours is higher. The same goes for Roche and AstraZeneca where the numbers also have discrepancies. There are a few main hypotheses as to where these discrepancies are arising from the first one being the lack of sensitivity from the AI tools to deal with situations like discontinuations and accounts represented differently in different annual reports which leads to inconsistencies that generate these differentials.

Another hypothesis is that the AI tools may have a different understanding of the formulas being used in the ratios and using different metrics when computing ratios, for example using purchases instead of cost of goods sold or vice-versa. While these inconsistencies did not affect the main conclusions of the analysis it leads to worries about the accuracy of these tools, especially when used in professional or academic contexts.

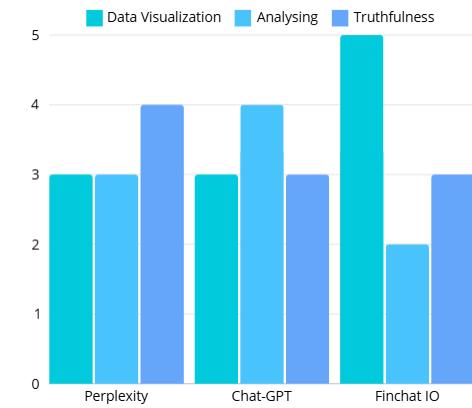


Figure 44. AI result ranking

ANNEX VII

Data Related to AI Analysis

To assess the data analyzed by AI, we are performing a prompt like example #1 in the lecture provided on AI analysis. The goal is to have AI write a similar report to ours and discuss any possible differences in results. Below is the prompt used to develop the AI report.

Prompt used: *"Make a Company analyses of Novartis with an accounting perspective. Use AstraZeneca and Roche as benchmark companies. The analysis needs to be written as if you were a student doing an assignment. Use the years 2023, 2022, 2021, 2020 and 2019 for analysis when collecting data and numbers (make use of tables). After the analysis of the financials, you also need to comment on their R&D strategy, how the M&A landscape is evolving, non-financial performance and why Novartis have gone from being a diversified company to focus on innovative new medicines."*