

MASTERS IN FINANCE

MASTERS FINAL WORK PROJECT

**EQUITY RESEARCH:
NOVO NORDISK A/S**

GABRIEL SOBRAL GONÇALVES

JUNE 2025

MASTERS IN FINANCE

MASTERS FINAL WORK PROJECT

**EQUITY RESEARCH:
NOVO NORDISK A/S**

GABRIEL SOBRAL GONÇALVES

SUPERVISORS:

**SUMAIRA ASHRAF
VICTOR BARROS**

JUNE 2025

Abstract

Novo Nordisk is a Danish global healthcare leader in diabetes care and obesity segments, generating revenues of over DKK 290 billion in 2024. The company's success is driven by its pioneering development of GLP-1 therapies.

Valuation analyses support a buy recommendation, with a fair target price of DKK 553.4 per share. This represents an upside of 29.7% from the current market price of DKK 426.6, paired with a medium risk profile and a discount rate of 6.4%.

Key factors underpinning this valuation include Novo Nordisk's market leading position, protected by patents in the medium term, which ensure strong profitability. Furthermore, its pipeline optionality as well as growing patient population across all segments offer significant growth potential, positioning the company as a leader in expanding markets.

However, regulatory pricing dynamics, intensifying competition, pipeline risk and CEO transition introduce risks to future growth which may be the reason for the recent volatility in the stock price. In line with the upside obtained, the observed volatility is seen as being asymmetrically driven by sentiment as it is believed that the market is pricing in market share losses as well as pricing declines beyond values that are seen as reasonable.

JEL classification: G10, G15, G17, G32, G34

Keywords: Equity Research; Big Pharma; Novo Nordisk; Discounted Cash Flow; Free Cash Flow to Firm

Resumo

A Novo Nordisk é uma empresa dinamarquesa líder em diabetes e obesidade, com receitas superiores a 290 mil milhões de DKK em 2024. O seu sucesso é impulsionado pelo desenvolvimento pioneiro de terapias GLP-1.

A análise suporta uma recomendação de compra, com um preço alvo de 553.4 DKK por ação. Representa assim um potencial de valorização de 29.7% face ao preço atual de 426.6 DKK, associado a um perfil de risco médio e uma taxa de desconto de 6.4%.

Os principais fatores que sustentam esta avaliação incluem a sua posição de mercado, protegida por patentes a médio prazo, que asseguram uma forte rentabilidade. A opcionalidade da sua pipeline de investigação, bem como o aumento da população de doentes, oferecem um potencial de crescimento significativo, posicionando a empresa como líder em mercados em expansão.

No entanto, as dinâmicas regulatórias de preços, concorrência, risco de pipeline e a transição do CEO introduzem riscos ao crescimento futuro, o que pode explicar a recente volatilidade nas ações. Em linha com o potencial de valorização, esta volatilidade é vista como derivada do sentimento assimétrico do mercado, acreditando-se que este está a incorporar perdas de mercado e quedas de preços para além dos valores considerados razoáveis.

Classificação JEL: G10, G15, G17, G32, G34

Palavras-Chave: Avaliação de Empresas; Indústria farmacêutica; Novo Nordisk; Fluxo de Caixa Descontado; Fluxo de Caixa Livre para a Empresa

Acknowledgements

First and foremost, I would like to express my deepest gratitude to my entire family for the environment I was raised in and the opportunities I was given, both of which allowed me to reach my potential in areas beyond academia.

To all my friends, especially Tomás Reis, who has played the most significant role in shaping who I am today in the field of Finance, and who continues to mentor me in topics that often surpass the stratosphere.

To the friends I made during the Bachelor's and Master's journey, thank you for your support and companionship throughout these challenging yet rewarding years.

To LIS, where I took my first meaningful steps into the world of Finance and came to understand what it truly is. I am especially grateful to Alexandre Silva, who patiently guided me from the basics of financial accounting to the intricacies of DCF modeling. Everyone I had the opportunity to meet and work alongside during those four formative years shaped me immensely. A special mention to the Tyson Foods team- Afonso, Damião, and Diana as well as Pedro for his guidance as president. I am certain each of you has a brilliant future ahead.

To Otelinda and Carlos Silveira, for promoting academic excellence and meritocracy. The creation of the “*Bolsa Escolar de Mérito Otelinda e Carlos Silveira*” has inspired, and continues to inspire, students like me to pursue advanced studies.

To my colleagues at BNP Paribas, and to the company itself, for giving me my first official hands-on experience in Finance.

Lastly, I would like to thank my supervisors and everyone who supported me in completing this project.

“It's not on the elemental chart”

Glossary

AOM - Anti Obesity Medications
API - Active Pharmaceutical Ingredient
ASCVD - Atherosclerotic Cardiovascular Disease
BAOM - Branded Anti Obesity Medication
BLA - Biologics License Applications
BMI - Body Mass Index
CKD - Chronic Kidney Disease
CVD - Cardiovascular diseases
FDA - Food and Drug Administration
GLP-1 - Glucagon-like peptide-1
HHS - Department of Health and Human Services
HFpEF - Heart Failure with preserved Ejection Fraction
IFRS- International Financial Reporting Standards
IRA - Inflation Reduction Act
MASH - Metabolic dysfunction-associated steatohepatitis
NME - New Molecular Entities
NN - Novo Nordisk
NRx - New prescriptions
NTB - New-to-brand prescription
PBM - Pharmacy benefit managers
SC - Subcutaneous
T1D - Type 1 Diabetes
T2D - Type 2 Diabetes
TRx - Total prescriptions

Index

Abstract	i
Resumo	ii
Acknowledgements	iii
Glossary	iv
Index	v
List of Figures	vi
List of Tables	vii
List of Appendices	viii
1. Research Snapshot	1
2. Business Description	2
3. Management and ESG	5
4. Industry Overview and Competitive Positioning	7
5. Investment Summary	10
6. Valuation	11
7. Financial Analysis	15
8. Investment Risks	17
Appendices	20
References	36
Disclosures and Disclaimers	38

List of Figures

Figure 1. Relative Price Performance	1
Figure 2. Dividends & Share repurchase	1
Figure 3. Total Turnover (DKKm)	2
Figure 4. Revenue contribution per segment	2
Figure 5. Global number of patients on GLP-1s across diabetes and obesity	2
Figure 6. Sales by Region	2
Figure 7. Obesity Prevalence (BMI>30) by Region	3
Figure 8. Novo Nordisk global diabetes value market share	3
Figure 9. Novo Nordisk leading position in Obesity and Haemophilia	3
Figure 10. Global diabetes prescription`s penetration by treatment	4
Figure 11. Ownership Structure	4
Figure 12. Novo Nordisk DPS & Payout Ratio	4
Figure 13. CEO Lars Fruergaard Jørgensen	5
Figure 14. Chairman Helge Lund	5
Figure 15. ESG Risk Rating	5
Figure 16. GHG Emissions Intensity per Sales (MT per million)	6
Figure 17. Waste Intensity per Sales (Metric Tons per million)	6
Figure 18. Energy Intensity per Sales (MWh per million)	6
Figure 19. % Women on Board	6
Figure 20. Total Executive Compensation (DKK million)	7
Figure 21. Revenue of the worldwide pharmaceutical market (in billion U.S. dollars)	7
Figure 22. Distribution of the total global pharmaceutical market sales	7
Figure 23. Big Pharma Market Share (2024)	7
Figure 24. Projected top therapy areas worldwide in 2027, by spending (billion USD)	7
Figure 25. Worldwide total prescription drug revenue at risk from patent expiration	8
Figure 26. Global spending on pharmaceutical R&D from 2023 to 2028 (billion USD)	8
Figure 27. Industry Profitability Ratios (2024)	9
Figure 28. Industry Solvency Ratios (2024)	9
Figure 29. Industry Liquidity Ratios (2024)	9
Figure 30. Novo Nordisk 2025 YE PT (DKK/Share)	10
Figure 31. Industry Efficiency Ratios (2024)	10
Figure 32. Blue / Grey Scenarios	10

Figure 33. Diabetes: Novo Nordisk Market Share	11
Figure 34. Diabetes: Novo Nordisk GLP-1 average price/month (DKK)	11
Figure 35. Obesity: Duopoly Market Shares	11
Figure 36. Obesity: NN GLP-1 average price/month (DKK)	12
Figure 37. Capex Evolution	12
Figure 38. Shareholders Total Return Evolution	12
Figure 39. Equity value from FCFF (base case, DKK Mm)	13
Figure 40. Profitability Ratios	15
Figure 41. Free Cash Flow	15
Figure 42. Solvency Ratios	15
Figure 43. Liquidity Ratios	16
Figure 44. Efficiency Ratios	16
Figure 45. Risk Matrix	17
Figure 46. Risks Relationships	17
Figure 47. Operational Risk Matrix	18
Figure 48. Industry Risk Matrix	18
Figure 49. Monte Carlo Simulation	19

List of Tables

Table 1. Investment Summary	1
Table 2. Selected Acquisitions- Novo Nordisk	3
Table 3. New therapeutic areas have unmet medical needs	4
Table 4. Top 5 Shareholders	4
Table 5. CEO & Board of Directors	5
Table 6. Phase transition success rates per segment	8
Table 7. Pharma AI collaborations	8
Table 8. Generic companies' interest in GLP-1 market	9
Table 9. Probability of Success per Trial Phase	11
Table 10. Beta computation- Sector approach	13
Table 11. Cost of Equity	13
Table 12. After-tax Cost of Debt	13
Table 13. WACC	13
Table 14. Present Value of FCFF	13
Table 15. Multiples comparison	14
Table 16. Distortion Risks: US Gaap vs IFRS	14

List of Appendices

Appendix 1: Statement of Financial Position	20
Appendix 2: Income Statement	20
Appendix 3: Cash Flow Statement	21
Appendix 4: Key Financial Ratios	21
Appendix 5: Common Size Financial Statements	22
Appendix 6: Forecasting Assumptions- Rationale	23
Appendix 7: Financial Assumptions	25
Appendix 8: Revenue Schedule- Diabetes	26
Appendix 9: Revenue Schedule- Obesity	27
Appendix 10: Revenue Schedule- Rare Diseases	28
Appendix 11: Revenue Schedule- Pipeline- Cardiovascular & Emerging Therapy	29
Appendix 12: Peers Comparison (2024)	30
Appendix 13: CEO & Board of Directors	30
Appendix 14: Cost of Debt	31
Appendix 15: Beta Estimation	31
Appendix 16: WACC Method- Enterprise Value and Equity Value determination	32
Appendix 17: Terminal Growth Rate	32
Appendix 18: Scenarios- Base, Bullish and Bearish	33
Appendix 19: Sensitivity Analysis	33
Appendix 20: Operational Risks- Impact and Mitigants	34
Appendix 21: Porter's Five Forces- Novo Nordisk	34
Appendix 22: ESG Risk Ratings (2024)	35

Novo Nordisk: Sailing through obesity growth opportunities

(YE 2025 Price Target of DKK 553.4 (29.7%); Recommendation is to Buy with Medium Risk)

1. Research Snapshot

Buy recommendation | Novo Nordisk A/S is recommended as a Buy, with a YE 2025 price target of DKK 553.4. The DCF model, with a discount rate of 6.4%, implies a 29.7% upside potential (51.1% annualized return from 16th May closing price). Despite competitive pressures and regulatory and pricing challenges that justify a cautious stance, the continued success in clinical pipelines and market leadership in expanding markets such as the Diabetes and Obesity segment support long-term potential. Therefore, the recommendation is issued with a medium level of risk.

Margins supported by innovation | Novo Nordisk's profitability remains strong, driven by high demand for its leading GLP-1 drugs Ozempic and Wegovy, which are patent protected until early 2030. Despite the fiercely competition from Eli Lilly (duopoly), these products still dominate the diabetes and obesity markets, and the company's ongoing R&D investments provide a solid foundation for the next generation of drugs and therefore sustain its market share leadership.

Resilient amid market uncertainties | While the pharmaceutical industry faces headwinds such as regulatory hurdles and downward pricing pressures, Novo Nordisk's core focus on chronic disease treatments offers resilience in the medium-term. The company's diabetes care portfolio benefits from consistent global demand, providing a buffer against macroeconomic volatility. Additionally, its broad international presence and effective supply chain management reduce exposure to regional disruptions. This stability ensures that Novo Nordisk can continue delivering steady revenues, reinforcing its medium risk profile.

Seizing obesity growth opportunities | Novo Nordisk is uniquely positioned to capitalize on the rapidly expanding obesity market, which is expected to reach multibillion dollar potential in the coming years. The success of Wegovy highlights the company's strategic foresight and execution capabilities. Increasing global awareness of obesity as a chronic condition supports strong future market penetration with the current GLP-1 obesity treatment penetration among the obese population only standing at 0.8%. Novo Nordisk's pipeline includes next-generation obesity treatments that can further solidify its dominance in this high-growth segment, offering long-term revenue opportunities.

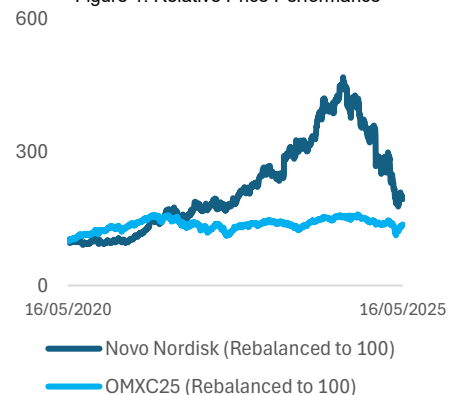
Shareholder value focus | Novo Nordisk demonstrates a consistent commitment to delivering value to shareholders through regular dividend payouts and share buyback programs. The company's ability to generate strong cash flow supports these initiatives while allowing for continuous reinvestment in growth opportunities. The balanced approach to capital allocation aligns with the management's focus on long-term value creation and conservative financial policy. Its track record of financial stability and operational efficiency underpins the buy recommendation.

Table 1. Investment Summary

Investment Summary	
Price target (YE 2025)	DKK 553.4
Upside	29.7%
Price Close (16/May/2025)	DKK 426.6
Stock Exchange	Nasdaq Copenhagen
Industry	Pharmaceuticals
Ticker (Bloomberg)	NOVOB DC EQUITY
52w Price Range	DKK 380-DKK 1033.2
Dividend Yield (2024)	2.4%
Shares Outstanding	4.5bn
Market Cap (16/May/2025)	DKK 1.9T
Free Float	94.4%
Price Target- Analyst's Consensus (Refinitiv)	DKK 630

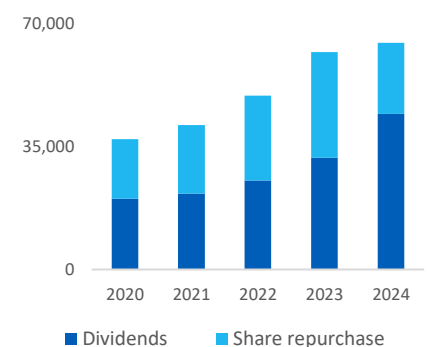
Source: Bloomberg & Author's Analysis

Figure 1. Relative Price Performance



Source: Bloomberg & Author's Analysis

Figure 2. Dividends & Share repurchase



Source: Bloomberg & Author's Analysis

2. Business Description

Novo Nordisk A/S is a global healthcare company headquartered in Denmark, specializing in diabetes care, obesity treatments, and therapies for rare diseases. Founded in **1923**, Novo Nordisk has established itself as a leader in addressing chronic health conditions through innovative pharmaceutical solutions. The company's business is divided into two key segments: **Diabetes and Obesity Care** and **Rare Disease Care**, with diabetes and obesity care representing more than **90% of total sales**. Its pioneering contributions to healthcare innovation, particularly in diabetes management, obesity treatments, and rare disease therapies, position Novo Nordisk as a frontrunner in the global pharmaceutical industry.

Geographic and business segments

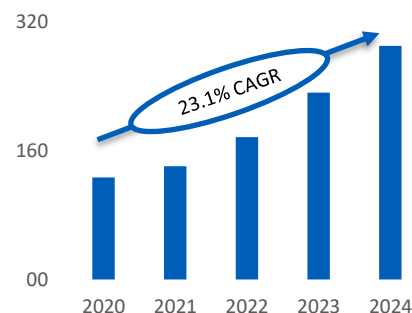
Novo Nordisk's leadership in **diabetes care** is a cornerstone of its business strategy, supported by a comprehensive portfolio of insulin products and next-generation GLP-1 receptor agonist therapies. Products such as **Ozempic** and **Rybelsus** have solidified its dominance in the treatment of type 2 diabetes. Launched in 2018, Ozempic has become Novo Nordisk's best-performing product, achieving global sales of **DKK 120.3 billion in 2024**, showcasing strong demand driven by its efficacy and convenience as a once-weekly GLP-1 therapy. The growing adoption of GLP-1 treatments, as a preferred option for type 2 diabetes, has also supported significant growth for Novo Nordisk in this category. At the same time, the company faces pricing pressures in markets such as the United States, where **pharmacy benefit managers** and managed care organizations continue to demand higher rebates, contributing to downward price trends despite volume growth.

In addition to its dominant position in diabetes care, Novo Nordisk has emerged as a key player in the growing **obesity management market**. The launch of **Wegovy**, a highly effective GLP-1 therapy for weight management, addresses a global unmet need, as obesity rates continue to rise. Novo Nordisk has successfully positioned Wegovy as a market-leading solution, launching it in major markets, including the **United States**, Denmark, Norway, Germany, and the United Kingdom. This rapid adoption depicts Novo Nordisk's ability to address emerging health crises while maintaining its leadership in metabolic disease therapies.

Novo Nordisk's second segment, **Rare Disease**, provides treatments for haemophilia, growth disorders, and other rare blood conditions. Although this segment constitutes a smaller share of overall revenue compared to diabetes and obesity care, it underscores the company's commitment to addressing underserved medical needs. The rare disease business continues to deliver value, benefiting from specialized products and strong demand across global markets. Novo Nordisk maintains a strong global presence, operating in more than **80 countries**, with its most significant markets being the **United States**, China, Japan, Canada, and major European nations.

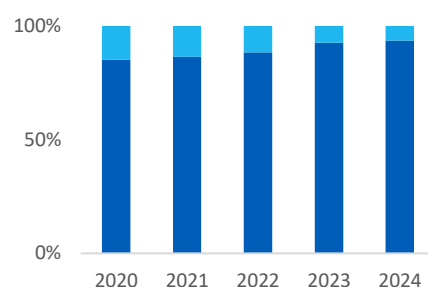
The company's global operations are organized into four geographic regions: **North America**, **Region China**, **EMEA** (Europe, Middle East, and Africa), and **Rest of World**. North America, particularly the United States, is Novo Nordisk's largest and most important market, accounting for approximately **57.6% of total sales in 2024**. The U.S. market is characterized by high demand for GLP-1 therapies, obesity treatments, and a competitive landscape that includes major players such as Eli Lilly. While Novo Nordisk faces increased competition and pricing pressures, its focus on innovation and value-driven solutions has allowed it to maintain a leading market share.

Figure 3. Total Turnover (DKKm)



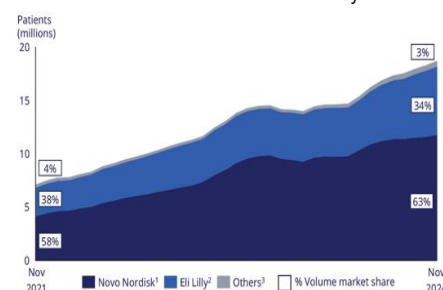
Source: Bloomberg & Author's Analysis

Figure 4. Revenue contribution per segment



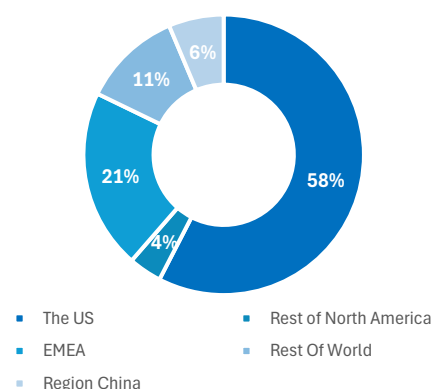
Source: Bloomberg & Author's Analysis

Figure 5. Global number of patients on GLP-1s across diabetes and obesity



Source: Novo Nordisk Annual Report (2024)

Figure 6. Sales by Region



Source: Bloomberg & Author's Analysis

In China and the broader EMEA regions, Novo Nordisk continues to expand its presence through targeted growth strategies, leveraging its innovative product portfolio to address the rising burden of diabetes and obesity. For instance, sales in China accounted for **6.4% of total revenues in 2024**, reflecting steady demand for insulin products and GLP-1 therapies despite market challenges. Emerging markets, categorized under the “Rest of World” segment, also contribute significantly to Novo Nordisk’s growth, driven by increasing healthcare access and demand for diabetes care solutions.

Company Strategy

Novo Nordisk’s strategic vision is to lead the global fight against serious chronic diseases by developing innovative therapies that transform lives and deliver sustainable, long-term health outcomes.

In the area of **Diabetes and Obesity**, the company aims to reinforce its global leadership by advancing next-generation therapies, including once-weekly insulins and oral GLP-1 receptor agonists. It is also focused on enhancing patient outcomes through integrated care solutions and digital health tools, while expanding access to care in emerging markets. The obesity franchise, particularly driven by the success of Wegovy, is being scaled across more geographies and indications, including cardiovascular risk reduction.

Within **Rare Diseases**, Novo Nordisk is working to build a leadership position by using its existing portfolio in rare endocrine and hematological conditions. The strategy includes expanding into adjacent disease areas, pursuing external innovation through partnerships and acquisitions, and investing in cutting-edge platforms such as RNA interference (RNAi) and gene therapy to address high unmet medical needs.

In **Cardiovascular and Emerging Therapies**, the company is establishing a presence in large therapeutic areas beyond its traditional focus. Key areas include the treatment of atherosclerosis, chronic kidney disease, metabolic dysfunction-associated steatohepatitis (MASH), and Alzheimer’s disease. By building a vigorous pipeline and investing in novel mechanisms of action, Novo Nordisk aims to deliver transformative outcomes in these complex and high-burden diseases.

Acquisition strategy

Novo Nordisk has ramped up strategic acquisitions to support growth in obesity, rare diseases, and manufacturing capacity. Its largest deal to date is the **DKK 113.9 billion acquisition of three Catalent facilities** in 2024, aimed at scaling production of GLP-1 therapies amid surging global demand. By integrating Catalent’s fill-finish and biologics facilities, particularly in the U.S. and Europe, Novo Nordisk enhances its end-to-end control over supply chains, a key bottleneck in obesity care scalability.

Other recent deals include **Inversago Pharma** (DKK 7.6 billion) for obesity drug candidates, **Forma Therapeutics** (DKK 7.6 billion) for rare blood disorders, and **Dicerna Pharmaceuticals** (DKK 22.8 billion) to expand into RNAi technology. These targeted acquisitions align with Novo Nordisk’s focus on cardiometabolic innovation and long-term pipeline diversification.

Novo Nordisk’s M&A strategy remains **highly selective**, focusing on assets that support its leadership in **cardiometabolic and rare diseases**, while accelerating platform capabilities in **biologics, RNA-based therapies, and precision medicine**.

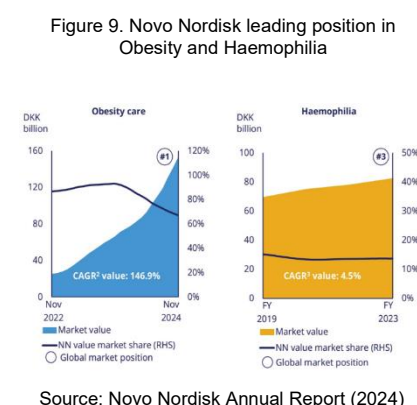
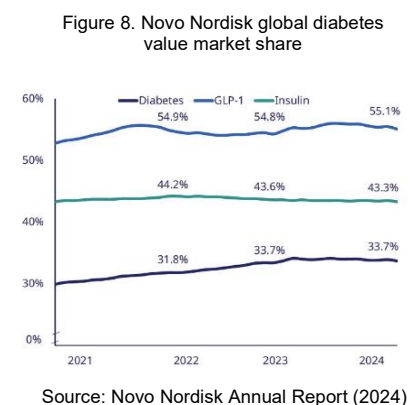
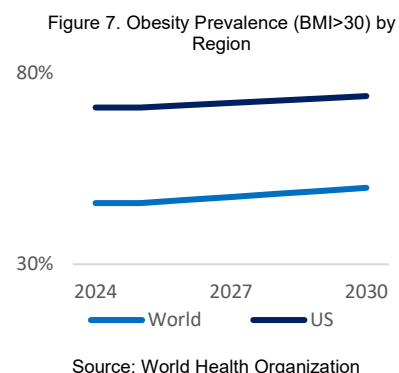


Table 2. Selected Acquisitions- Novo Nordisk

Year	Target Company	Transaction Value	Strategy Focus
2024	Catalent (facilities)	USD 16.5bn	Manufacturing capacity for GLP-1 scale-up
2023	Inversago Pharma	USD 1.1bn	Obesity; CB1 receptor antagonists
2022	Forma Therapeutics	USD 1.1 bn	Rare blood disorders (sickle cell disease)
2021	Dicerna Pharmaceuticals	USD 3.3 bn	RNAi drug discovery platform
2020	Convida Therapeutics	USD 2.1bn	Cardiovascular and kidney diseases (IL-6 inhibitors)

Source: Novo Nordisk Annual Reports

Company Key Drivers of profitability

Novo Nordisk's profitability is anchored in a synergistic combination of structural demand tailwinds, premium product economics, and operational discipline.

Structural Demand from Obesity and Diabetes Epidemics

Over **764 million people globally live with obesity**, and that number is growing. Diabetes prevalence is projected to rise from **463 million in 2024 to 700 million by 2045**, according to the International Diabetes Federation. These trends ensure long-term volume growth for Novo's metabolic disease franchise and expand the addressable market for GLP-1 therapies.

Market Leadership and Pricing Resilience

As a global leader in both diabetes and obesity care, Novo Nordisk enjoys strong pricing power due to clinical superiority. This **leadership reduces reliance on volume** alone and mitigates margin erosion.

Focused Innovation and Pipeline Efficiency

Novo's R&D strategy is highly **concentrated in metabolic and rare diseases**, enabling deep expertise and efficient resource deployment. **High R&D productivity** and tight integration with commercial teams lead to faster go-to-market execution and better capital returns.

Ownership Structure

Novo Nordisk has a **unique ownership structure** that combines public listing with **foundation control** to ensure long-term stability and alignment with its core mission. The company is **publicly traded** on the Nasdaq Copenhagen stock exchange, with the majority of its voting rights held by the **Novo Nordisk Foundation** through its wholly owned investment company, **Novo Holdings A/S**. Although the Foundation owns approximately **28% of the total share capital**, it controls **more than 75% of the voting rights** by holding **Class A shares**, which carry enhanced voting power. The remaining share capital, around **72%**, is held by public investors who own **Class B shares** with standard voting rights, collectively accounting for **less than 25% of the total voting power**.

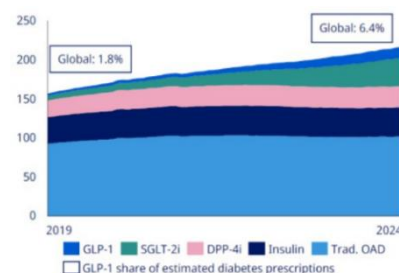
This ownership structure allows Novo Nordisk to maintain **strategic continuity** and prioritize **long-term scientific and societal objectives**, rather than being driven solely by short-term market expectations. Profits distributed to the Novo Nordisk Foundation are **reinvested into research, innovation, and philanthropic initiatives** in areas such as **health, sustainability, and education**. Despite the Foundation's control, Novo Nordisk operates with **high standards of corporate governance**, including a **diverse and independent board of directors** and a strong commitment to **transparency**. The model provides a **stable foundation for sustainable growth** while ensuring that the company's success benefits both **shareholders and society at large**.

Dividend Policy

Novo Nordisk maintains a progressive dividend policy, targeting a **payout ratio of around 50%** of net profit. For the fiscal year 2024, the company announced a total **dividend per share (DPS) of DKK 11.40**, up from DKK 9.40 in 2023, reflecting strong earnings momentum and confidence in future cash flows.

Dividends are paid in two instalments: an interim dividend in August and a final dividend in March. The company complements cash dividends with regular **share buybacks**, reinforcing a shareholder-friendly capital return framework.

Figure 10. Global diabetes prescription's penetration by treatment



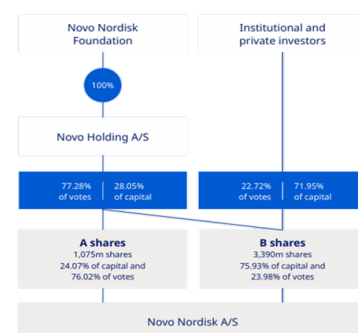
Source: Novo Nordisk Annual Report (2024)

Table 3. New therapeutic areas have unmet medical needs

Therapy area	Unmet need
CVD	32% of global deaths caused by CVD
MASH	>250 million people affected by MASH
CKD	>800 million people affected by CKD
AD/PD	~70 million people are living with AD worldwide

Source: Novo Nordisk Annual Report (2024)

Figure 11. Ownership Structure



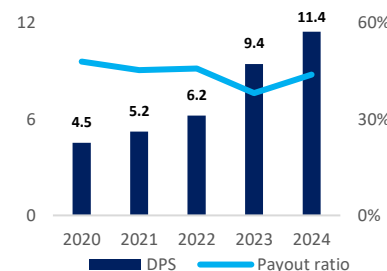
Source: Novo Nordisk Annual Report (2024)

Table 4. Top 5 Shareholders

Top 5 Shareholders	
Name	% Stake
Novo Nordisk Foundation -> Novo Holdings A/S	28.05%
Vanguard Group, Inc. (The)	13.56%
Blackrock Inc.	8.80%
State Street Corporation	5.10%
Charles Schwab Investment Management, Inc.	2.23%

Source: Bloomberg

Figure 12. Novo Nordisk DPS & Payout Ratio



Source: Bloomberg & Author's Analysis

3. Management and ESG

Management

Novo Nordisk has a strong and structured leadership framework, characterized by a two-tier system comprising the **Board of Directors** and the **Executive Management**. This structure ensures a clear separation of oversight and day-to-day management.

CEO Step Down

The CEO, **Lars Fruergaard Jørgensen**, has been with the company since 1991 and took on the role of President and CEO in 2017. Despite his extensive experience and strong leadership in steering Novo Nordisk’s to the current position, in May 2025, Novo Nordisk announced that CEO Lars Fruergaard Jørgensen **will step down after eight years at the helm**. Under his leadership, the company transformed into a global leader in metabolic disease treatment, with significant growth in revenue, profitability, and shareholder value. The decision was described as mutual between Jørgensen and the Board, following a period of market volatility and increased competitive pressure. He **will remain in his role temporarily to ensure a smooth transition** while the company searches for a successor. The Board reaffirmed its strategic direction and has **brought former CEO Lars Rebien Sørensen into board discussions as an observer** to support leadership continuity.

The **management team** is composed of seasoned leaders, many of whom have been with Novo Nordisk for decades, reflecting their **deep institutional knowledge and expertise**. Key figures include **Maziar Mike Doustdar**, leading International Operations; **Ludovic Helfgott**, driving the Rare Disease segment; and **Karsten Munk Knudsen**, the CFO, who oversees Finance, Legal, and Procurement. This team’s stability and experience in diverse markets and functions provide Novo Nordisk with a **solid foundation for its operational and strategic execution**. The presence of leaders such as **Camilla Sylvest** and **Henrik Wulff**, who handle areas like Commercial Strategy and Quality Assurance respectively, demonstrates a focus on **innovation, sustainability, and customer-oriented solutions**.

The **Board of Directors** complements the executive team with experienced professionals like **Helge Lund** as Chairman and other members bringing diverse expertise in healthcare, corporate strategy, and finance. The inclusion of **employee representatives** ensures workforce interests are incorporated into decision making processes. The management structure reflects a balance of **visionary leadership and operational excellence**, critical for maintaining Novo Nordisk’s position as a global leader in diabetes, obesity, and rare diseases.

Environmental, Social and Governance

Novo Nordisk demonstrates a **strong commitment to environmental, social, and governance (ESG) principles**, which are deeply integrated into its operations and strategic goals. The company’s ESG strategy is anchored in its “**Strategic Aspirations 2025**,” which focus on **reducing environmental impact, adding societal value, and being recognized as a sustainable employer**.

The **ESG risk rating radar chart, provided by Sustainalytics**, illustrates Novo Nordisk’s **medium ESG risk (score: 23)**, reflecting a risk above peers although still within reasonable parameters. Pfizer is the one with the best ESG risk rating, with an 18.6 score. Please refer to *Appendix 22* for the full ESG’s rating list.

Figure 13. CEO Lars Fruergaard Jørgensen



Source: Novo Nordisk Annual Report (2024)

Table 5. CEO & Board of Directors

Name	Age	Independence	Title
Helge Lund	62	Independent	Chairman
Henrik Poulsen	58	Not Independent	Vice Chairman
Mette Bojer Jensen	49	Not Independent	Employee Representative
Thomas Rantzaau	53	Not Independent	Chemist
Lars Rebien Sørensen	70	Independent	Observer
Ellisabeth Dahl Christensen	59	Not Independent	Employee Representative
Liselotte Hyeved	59	Not Independent	Employee Representative
Dr Sylvie L Gregoire	63	Independent	Board Member
Kasim Kutay	60	Not Independent	Board Member
Dr Martin W Mackay	68	Independent	Board Member
Andreas Fibig	63	Independent	Board Member
Laurence Debroux	55	Independent	Board Member
Christina Law	58	Independent	Board Member

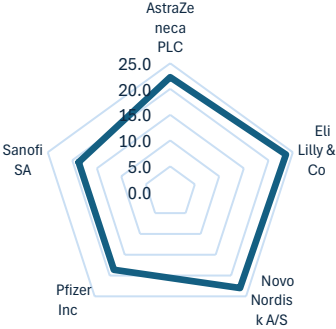
Source: Novo Nordisk Annual Report (2024)

Figure 14. Chairman Helge Lund



Source: Novo Nordisk Annual Report (2024)

Figure 15. ESG Risk Rating



Source: Sustainalytics

Environmental

Environmentally, Novo Nordisk has ambitious goals, including achieving **net-zero emissions across its value chain by 2045** and **zero emissions from operations and transportation by 2030**. Significant progress has already been made, with **all production sites operating on 100% renewable energy since 2020**. The company has also engaged over **60,000 suppliers to transition to renewable power**, showcasing its leadership in driving sustainability across its value chain. Initiatives like partnering with logistics companies to use low-emission fuels and **innovative recycling programs for injection pens** highlight Novo Nordisk's **proactive approach to environmental sustainability**.

The company has successfully reduced its **GHG emissions intensity per sales** over the past five years. As we can see in figure 16, there is a **steady downward trend** from 2020 to 2024, positioning Novo Nordisk as one of the most efficient companies in the sector. This progress aligns with the company's ambitious goal of reaching **net-zero emissions by 2045**. Key initiatives, such as the transition to **100% renewable electricity** across production sites, have played a critical role in achieving this reduction. By comparison, **Sanofi** and **Pfizer** show slower reductions, while **Eli Lilly** has made notable progress but started from a higher baseline. Novo Nordisk's consistent improvement depicts its **leadership in climate action** and commitment to reducing its carbon footprint.

Novo Nordisk maintains a **relatively high waste intensity per sales**, as seen in the provided graph 17 (although with a significant decrease from 2022 to 2024). The company has implemented effective waste management practices, such as recycling initiatives and reducing material usage in production processes. Peers like **Sanofi** and **Eli Lilly** also experience **fluctuating waste levels**. The ongoing **TakeBack programs** for medical devices and circular economy principles are part of Novo Nordisk's long-term approach to minimizing waste and promoting resource efficiency.

The company's **energy intensity per sales** has shown a steady **decline** since 2020. Novo Nordisk's investments in **energy-efficient technologies** and its reliance on **renewable energy** have resulted in major improvements. Compared to competitors, Novo Nordisk outperforms **Eli Lilly** and **Sanofi**, who exhibit higher energy intensities, while maintaining steady progress alongside **AstraZeneca**. This achievement aligns with Novo Nordisk's goal of operating with minimal environmental impact and reinforces its ability to reduce energy consumption across global operations.

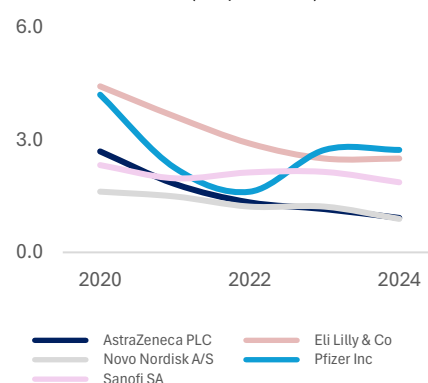
Social

Socially, Novo Nordisk prioritizes **access to affordable healthcare**, particularly for vulnerable populations in low and middle-income countries. Through programs such as **Changing Diabetes in Children** and partnerships with organizations like **UNICEF**, the company supports **millions of people living with chronic diseases**. For instance, Novo Nordisk reached **8.4 million patients globally through access and affordability initiatives in 2024** and expanded **insulin production in Africa** to meet rising demand.

Governance

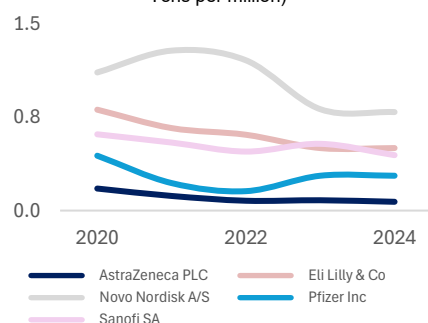
Novo Nordisk's **Governance practices** are embedded in high ethical standards and linked to sustainability. The company integrates **ESG targets into executive remuneration**, which ensures alignment between leadership performance and long-term sustainability goals. Additionally, a **Sustainability Advisory Council** provides independent input on ESG strategies, further enhancing transparency and accountability.

Figure 16. GHG Emissions Intensity per Sales (MT per million)



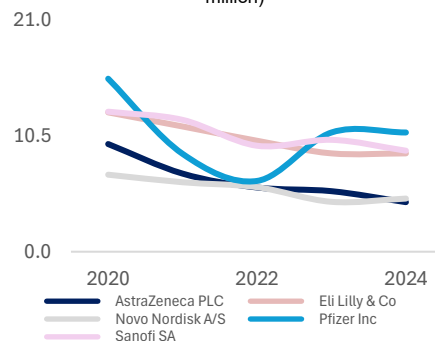
Source: Bloomberg & Author's Analysis

Figure 17 Waste Intensity per Sales (Metric Tons per million)



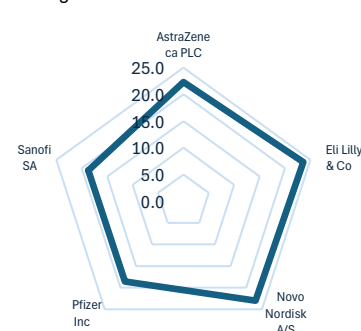
Source: Bloomberg & Author's Analysis

Figure 18. Energy Intensity per Sales (MWh per million)



Source: Bloomberg & Author's Analysis

Figure 19. % Women on Board



Source: Bloomberg & Author's Analysis

Metrics such as **gender diversity** are also a focus. **Women now hold 41% of senior leadership positions**, with a target of reaching **45% by 2025**. **The board of directors is also 50% composed by women, the highest value among peer companies as shown in graph 19**. Novo Nordisk works hard to foster an **inclusive workplace** that mirrors the diversity of its global patient base. Governance practices are additionally strengthened by adherence to international reporting standards, with **ESG performance audit**.

4. Industry Overview and Competitive Positioning

The pharmaceutical industry is **vital to global healthcare**, driving innovations in disease prevention, diagnosis, and treatment. Its breakthroughs **have extended life expectancy and improved quality of life** worldwide. As a key economic sector, it **invests heavily in R&D** and continually develops advanced therapies like biologics, personalized medicine, and gene editing.

However, the industry faces significant challenges, including **strict regulations, rising competition, and fast-paced scientific change**. Companies must navigate patent expirations, pricing pressures, supply chain risks and growing demands for affordable, accessible treatments, all within a complex and highly scrutinized environment.

Demand drivers

Demographics and Chronic Diseases | An aging global population is increasing the need for medications to treat chronic conditions such as heart disease, diabetes, cancer, and neurological disorders. Lifestyle changes are also contributing to the rising prevalence of these illnesses across all age groups.

Healthcare Access and Insurance | Expanded access to healthcare services and insurance coverage boosts demand. When more people are covered, especially in developing regions, more individuals can afford and access medications.

Pandemics | Pandemics, such as COVID-19, create sudden spikes in demand for vaccines, treatments, and medical supplies. While the COVID-related demand wave already passed by, the industry remains alert to future outbreaks.

Consumer Awareness and Education | Increased awareness of health issues, driven by education and pharmaceutical marketing encourage people to seek treatment, expanding the market for both prescription and over the counter drugs.

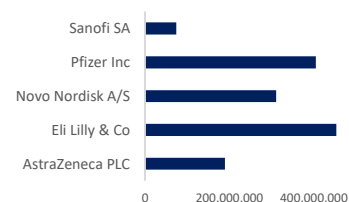
Supply drivers

Global Supply Chains | Pharmaceutical supply chains span multiple countries, offering cost benefits but also exposing companies to risks from geopolitical issues, natural disasters, or pandemics. Companies are investing in more resilient, diversified, and localized supply networks.

Manufacturing Capacity and Scalability | The ability to scale production quickly is crucial, especially during health emergencies. Flexible facilities and technological innovation help companies ramp up output while maintaining quality standards.

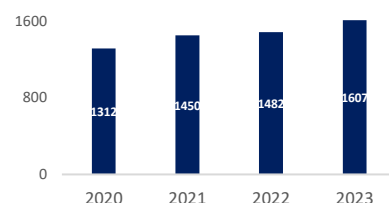
Technological Advancements | Digital tools, automation, and data analytics improve efficiency across production and logistics. These technologies help predict demand, optimize inventory, and reduce disruptions.

Figure 20. Total Executive Compensation (DKK million)



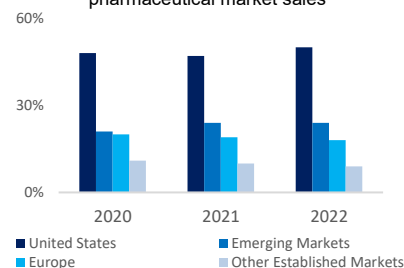
Source: Bloomberg & Author's Analysis

Figure 21. Revenue of the worldwide pharmaceutical market (in billion U.S. dollars)



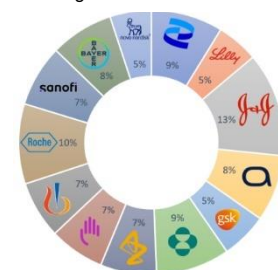
Source: Statista

Figure 22. Distribution of the total global pharmaceutical market sales



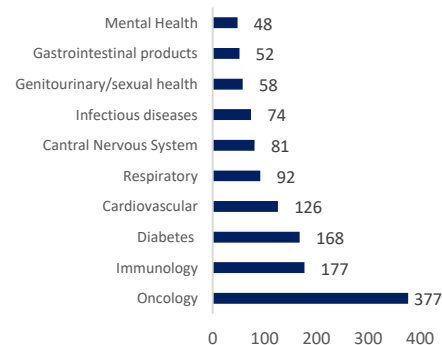
Source: Statista

Figure 23. Big Pharma Market Share (2024)



Source: Bloomberg

Figure 24. Projected top therapy areas worldwide in 2027, by spending (in billion U.S. dollars)



Source: Statista

Regulatory and Compliance Requirements | Strict global regulations ensure drug safety and quality but can slow down supply chains due to inspections and approval processes. Compliance is non-negotiable and essential for market access.

Tariffs and rising US drug pricing and regulatory risks

- Recent developments within the Department of Health and Human Services and the Food and Drug Administration, including leadership transitions and regulatory shifts, have significantly influenced market sentiment across the healthcare sector. These changes have heightened concerns **about potential delays in drug approvals, diminishing institutional support** for widespread vaccination initiatives, and **uncertainties related to Medicare and Medicaid funding** and accessibility, particularly in therapeutic areas such as HIV and obesity.
- Adding to these pressures, **President Donald Trump has reiterated his intention to impose tariffs on pharmaceutical imports**, citing disparities in drug pricing between the United States and the European Union. An official **investigation that may precede such measures is reportedly imminent**. In anticipation of evolving trade and industrial policies, **pharmaceutical companies are increasingly prioritizing domestic manufacturing**. Notably, Eli Lilly, Johnson & Johnson, and Novartis have recently announced substantial U.S. based investments of USD 27bn, USD 55bn, and USD 23bn, respectively, scheduled over the next four to five years.
- Although current market narratives predominantly emphasize the potential drawbacks of Trump-era policy revivals, **there are also possible economic benefits**. These include prospective reforms to **corporate tax credits and a reversion to immediate capital expensing**, allowing companies to claim full deductions in the year of investment rather than spreading them over multiple years.

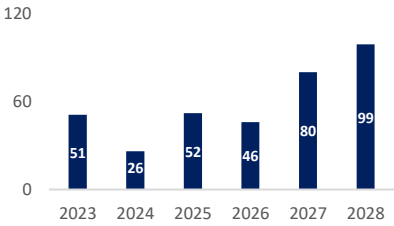
AI in Pharma

Generative AI holds significant **potential to enhance efficiency** across the pharmaceutical value chain, from accelerating drug discovery and streamlining clinical trials to optimizing manufacturing processes. While early applications show promise, it **remains uncertain whether AI can overcome the most fundamental barriers in drug development**, such as unlocking novel therapeutic pathways, materially increasing success rates, or eliminating the need for lengthy clinical trials.

AI can offer improvements across multiple areas:

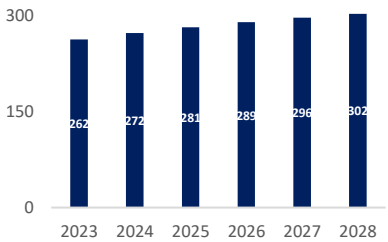
- Drug Discovery** | AI algorithms can generate novel molecular structures and identify promising candidates by analyzing large datasets. For instance, GSK’s hepatitis B drug bepirovirsen benefited from AI-based patient subtype identification.
- Manufacturing Optimization** | Companies like Eli Lilly have applied predictive AI models to enhance equipment performance and reduce downtime.
- Personalized Medicine and Target Identification** | AI helps analyze genetic and clinical data to guide individualized therapies. Sanofi’s partnership with Owkin is one such example.
- Virtual Screening** | AI can expedite molecule screening, reducing reliance on time-consuming lab experiments, as seen in Roche’s Genentech “lab-in-a-loop” approach.

Figure 25. Worldwide total prescription drug revenue at risk from patent expiration from 2023 to 2028 (in billion U.S. dollars)



Source: Statista

Figure 26. Total global spending on pharmaceutical research and development from 2023 to 2028 (in billion U.S. dollars)



Source: Statista

Table 6. Phase transition success rates per segment

Phase Success	Phase I to II		Phase II to III		Phase III to NDA/BLA		NDA/BLA to Approval	
	n	Phase POS	n	Phase POS	n	Phase POS	n	Phase POS
Hematology	92	50.0%	106	48.1%	82	76.0%	72	93.1%
Metabolic	136	61.8%	149	52.0%	66	63.6%	48	87.5%
Infectious disease	403	57.8%	414	38.4%	197	64.0%	156	92.9%
Others	154	63.6%	228	38.6%	90	60.0%	69	88.6%
Ophthalmology	88	71.2%	200	35.5%	82	51.2%	45	91.1%
Autoimmune	413	55.2%	471	31.4%	219	65.3%	202	94.1%
Allergy	55	56.4%	92	28.3%	34	64.7%	20	100.0%
Gastroenterology	45	46.7%	73	34.2%	35	57.1%	33	90.9%
All indications	4414	52.0%	4933	28.9%	1928	57.8%	1453	90.6%
Respiratory	179	55.9%	215	21.9%	62	64.5%	45	95.6%
Psychiatry	150	52.7%	164	26.8%	71	56.3%	57	91.2%
Endocrine	319	43.2%	293	26.6%	151	66.2%	124	86.3%
Neurology	516	47.7%	504	26.8%	226	53.1%	165	86.7%
Oncology	1628	48.8%	1732	24.6%	495	47.7%	324	92.0%
Cardiovascular	214	50.0%	252	21.0%	105	55.2%	80	82.5%
Urology	22	40.9%	40	15.0%	13	69.2%	13	84.6%

Source: Biomedtracker and Pharmapremia

Table 7. Pharma AI collaborations

AI specific collaborations	
AstraZeneca	Lunit, Owkin, BenevolentAI, Exscientia, SOPHiA GENETICS, DeepMind, Illumina
GSK	Exscientia, Insilico Medicine, PathAI, Tempus
Novartis	Microsoft, Schrodinger
Novo Nordisk	Microsoft (2022)
Roche	Stratipath (2024), Ibex & Amazon Web Services (2023), Exscientia, Schrodinger
Sanofi	Exscientia (2016), Owkin (2021), Atomwise (2022), Insilico Medicine (2022)

Source: Exane

- **Clinical Trial Acceleration** | AI supports site selection, virtual control arms, and patient recruitment, which has helped Novartis shorten trial timelines.

Despite these advances, **AI's transformative potential remains constrained by the quality and availability of data**. "Garbage in, garbage out" aptly summarizes the current bottleneck, as progress depends heavily on access to clean, comprehensive datasets. While companies with proprietary data, like Roche (via Flatiron Health and Foundation Medicine), may gain an edge, fundamental **breakthroughs require broader access to validated biological and clinical data**. Ultimately, **AI is more likely to represent an evolutionary improvement rather than a revolutionary disruption in drug development**. While emerging biotechs may drive innovation in specific areas, regulatory requirements and the **need for clinical validation will continue to impose structural limits**. Therefore, the full economic impact of AI-enabled R&D is unlikely to materialize before the 2030s.

Long-term GLP-1 generic risk

Of the top 20 global generics companies, **15 have shown interest in GLP-1s**, though commitment levels vary. Some (Viatris, Sandoz, Dr. Reddy's) are making it a strategic focus, while others (e.g., Teva, Hikma) remain cautious with limited capital allocation. Indian firms (e.g., Cipla, Lupin) are targeting emerging markets, and several companies are exploring innovative rather than generic approaches.

Supply chain reliance on **third-party device** and **API providers**, along with **limited CAPEX**, suggests generics will face ongoing **scaling challenges**. Estimated generics **CAPEX for GLP-1 (2025–2028) is ~USD 4.1bn—under 10% of the ~USD 40–45bn by Novo Nordisk and Eli Lilly**, reflecting risk-averse investment strategies and diversification needs.

Generic capacity is expected to stay fragmented, limiting economies of scale and reinforcing the originators' production and pricing advantages. **Early generics entry** in markets like India, Brazil, and China is expected **from 2026**, but uptake and supply scale remain uncertain. Despite competition, **originators are likely to maintain market dominance through sustained investment and IP protection**.

Competitive Positioning – Porter's 5 Forces Framework

Threat of New Entrants – LOW | The pharma industry has high barriers to entry, including long and costly R&D timelines, stringent regulatory approvals (e.g., FDA, EMA), and strong patent protection. These factors significantly deter new players, preserving incumbents' market dominance and limiting competitive threats.

Rivalry Among Competitors – HIGH | Pharma is highly competitive, driven by the race to innovate in high-value areas like oncology and immunology. Intense marketing, pricing strategies, and a strong focus on blockbuster drugs fuel rivalry. M&A activity further heightens competition by consolidating market power and accelerating portfolio expansion.

Power of Consumers – MODERATE | Buyer influence is shaped by bulk purchasing from governments and insurers, which drives pricing pressure through tenders and cost controls. Additionally, patient advocacy and political scrutiny over drug pricing amplify public influence, indirectly constraining companies' pricing strategies.

Threat of Substitute Products – MODERATE | Substitution risk is moderate, primarily due to the availability of generics and biosimilars after patent expiry. Governments promote their use to cut costs. Non-drug alternatives like lifestyle changes and digital health solutions also pose growing but indirect substitution risks in some therapeutic areas.

Table 8. Generic companies' interest in GLP-1 market

Management comment on GLP-1	
Viatris	Will present a comprehensive GLP-1 strategy Looking at Gx; Will develop all the devices Could do innovative or monthly formulations
Dr Reddys	Strategic Working on all products Will be on market formation
Sandoz	Part of the strategy Will be at market formation in Canada, Brazil Will develop Gx for all the products
Aspen	Contracting with LLY in South Africa + Plans to launch own Gx ex-US/EU
Amneal	Metsera partnership / branded GLP1 + want to contract with NOVO and LLY
Aurobindo	Building capacity
Teva	Launched Victoza AG will participate in the GLP-1 generic market
Hikma	Launched Victoza, will stay involved
Lupin	Yes, can launch in all EM market opening 2026; India is a priority
Glenmark	Participating, launched Victoza
Cipla	Focused on India; interested in contracting
Biocon	Participating, launched Victoza
Sun Pharma	Developing own GLP-1; Gx not confirmed
Zydus	Mentioned GLP-1 oppo in 2024
Fresenius Kabi	Mentioned GLP-1 oppo in 2024

Source: Morgan Stanley

Figure 27. Industry Profitability Ratios (2024)

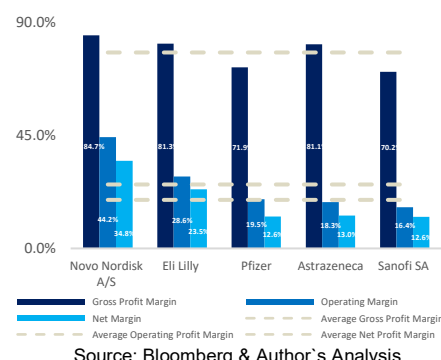


Figure 28. Industry Solvency Ratios (2024)

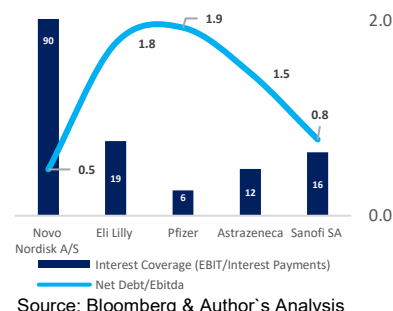
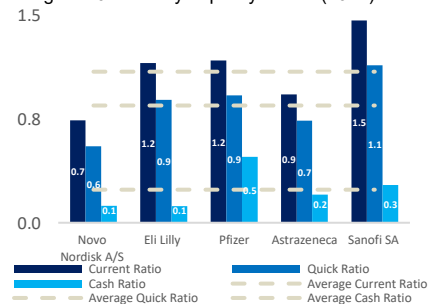


Figure 29. Industry Liquidity Ratios (2024)



Power of Suppliers – MODERATE | Supplier power in pharma is moderate, influenced by reliance on critical raw materials like APIs and biologics, often sourced from a limited pool. This limits pricing flexibility and switching options. However, large pharmaceutical firms mitigate this by maintaining diversified supplier networks across regions, reducing disruption risk and maintaining negotiation leverage.

5. Investment Summary

Novo Nordisk has a **Buy recommendation**, with a 2025YE price target of DKK 553.4, representing an **upside potential of 29.7%** (51.1% annualized return), against the closing price of DKK 426.6 on May 16th, 2025, with medium risk.

The Buy recommendation is supported by:

- **Global leadership in metabolic diseases** | Despite strong competition by Eli Lilly, Novo Nordisk is the current market leader in diabetes and obesity care, driven by blockbuster GLP-1 products Ozempic and Wegovy. The duopoly position is not expected to be changed soon although Novo Nordisk is projected to suffer market share erosions. With global obesity/ diabetes rates continuing to rise, the company is uniquely positioned to benefit from strong, long-term structural demand.
- **Strong financial and operational performance** | The company consistently delivers high margins, strong free cash flow, and robust returns on equity. Recent investments in manufacturing and supply chain capacity, including the acquisition of Catalent's three facilities, support scalability and top-line growth.
- **Attractive long-term pipeline and diversification potential** | Novo Nordisk's pipeline extends beyond metabolic disease into areas like cardiovascular outcomes and rare diseases, offering meaningful optionality. Upcoming innovation, including oral GLP-1 formulations, is expected to extend its growth runway and defend against competition.

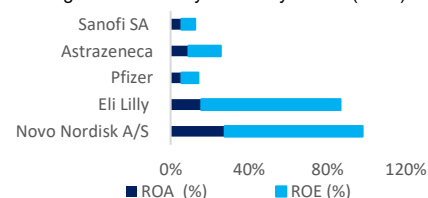
Valuation methods

The valuation methodologies used to determine Novo Nordisk's price target, gave similar conclusions. The **FCFF discounted at WACC was used as the base model** and implied an **NPV of DKK 553.4 per share**. Dividend Discount methodology was also determined, but results were considered not significant in the recommendation.

Investment Risks

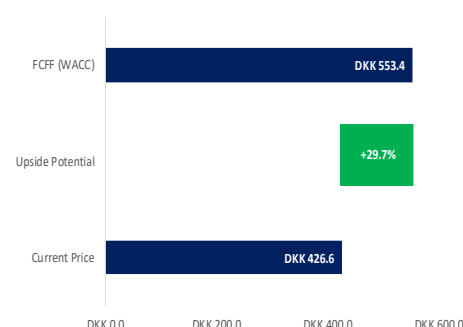
- **Regulatory and pricing headwinds** | Novo Nordisk is exposed to increasing regulatory scrutiny and evolving pricing frameworks, particularly in the U.S. and European markets. Legislative changes such as price caps, mandatory rebates, or greater bargaining power from PBMs could materially pressure net pricing, especially in its core diabetes and obesity segments, limiting margin expansion even as volumes grow.
- **Intensifying competition** | The GLP-1 market is becoming increasingly competitive, with Eli Lilly's *Zepbound* and other pipeline entrants threatening Novo Nordisk's market leadership. Competitive dynamics may force price concessions, higher marketing spend or accelerate the need for next-generation innovation to defend market share.
- **Pipeline and innovation risk** | While the company has a strong R&D track record, its long-term growth depends on successful clinical development and commercialization of pipeline assets. Regulatory setbacks, clinical trial failures, or delays in key programs could undermine future earnings visibility and investor confidence.

Figure 30. Industry Efficiency Ratios (2024)



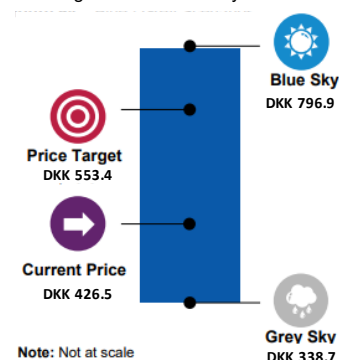
Source: Bloomberg & Author's Analysis

Figure 31. Novo Nordisk 2025 YE PT (DKK/Share)



Source: Author's Analysis

Figure 32. Blue / Grey Scenarios



Source: Author's Analysis

6. Valuation

To measure the fair value of the company, the **free cash flow to the firm model** was used as well as a **relative valuation**. Please refer to the rearranged and common-size financial statements in *Appendix 1, 2 and 3* as well as the high-level rationale of the assumptions for relevant variables and inputs in *Appendix 6 and 7*. Furthermore, please refer to the Revenue Schedules in *Appendix 8, 9, 10 and 11*.

Free Cash Flow to the Firm Approach

Forecasting the Future

The **final year of the DCF is 2033** as it is understood to capture the full growth runway of Novo Nordisk's key drugs like Ozempic and Wegovy, which are expected to drive revenue through the next decade. It also allows time for pipeline assets to mature while staying within a realistic forecasting horizon. This **balances visibility on current growth with a grounded estimate of long-term value** in the terminal year. Furthermore, the forecasts stand within FY25 guidance.

Please note that exchange rates were incorporated into the sales forecast based on region. The **DKK/EUR** rate was assumed constant, reflecting Denmark's **fixed exchange rate policy** with the euro since 1999 under the ERM II mechanism. For **DKK/USD**, the **Fisher Equation** was applied using bond yield differentials between the US and Denmark. As sales outside the US and Europe represent less than 20% of total revenue, FX rates in those regions were held constant due to their limited impact.

Obesity and Diabetes Sales Forecasts

For estimating the cash-flows, several critical assumptions were made. Sales were forecasted using a **hybrid approach**. The potential Diabetes/ Obesity markets were forecasted through **population growth projections** and **obesity/ diabetes prevalences**. Overall **drug penetration** in the market (as a % of total patients) was estimated as well as **Novo Nordisk's market share**.

Pricing per patient was computed having a starting point the price per drug per region using the information available in Novo Nordisk's 2024 Annual Report. Total segments' sales were computed **multiplying population with the disease by the drug penetration by Novo Nordisk market share by the annualized price per drug**.

Rare Diseases and Pipeline Sales Forecast

For the Rare Diseases segment, a **similar approach** was used with the only difference that the overall drug penetration in the market was not used, as in these types of diseases there is only one type of drug in which we can consider as a segment of the treatment.

Lastly, for the segment created regarding Novo Nordisk's Pipeline (excluding pipeline that is already considered in the Diabetes and Obesity segments as well as Rare Diseases segment), a **probability-adjusted NPV was used**. For each **trial phase a probability of success (POS)** was assigned and was assumed a **sales peak**. Moreover, a **sales ramp post-Launch** (in % of Peak Sales) was also assumed. In the end, the 3 segments' sales (Diabetes & Obesity Care + Rare Diseases + Pipeline) were aggregated to reach the total company level sales.

Financial Projections Overview

Gross profit is expected to continue to be very stable in the upcoming years as it was in the last ones (in the range 83%-85%) due most of its sales are coming from a **duopoly position** as well as the strategic **investments in in-house API manufacturing** currently undergoing. Despite price negotiations, especially in the

Figure 33. Diabetes: Novo Nordisk Market Share

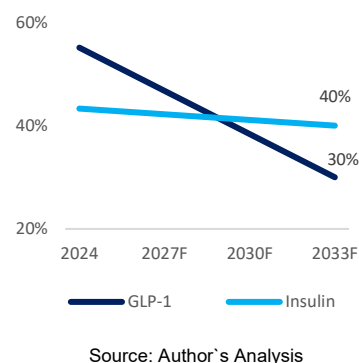


Figure 34. Diabetes: Novo Nordisk GLP-1 average price/month (DKK)

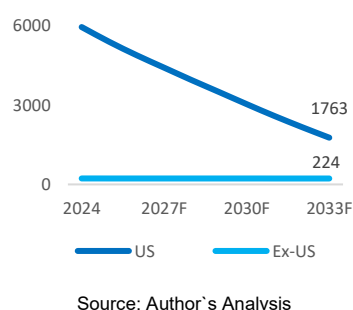
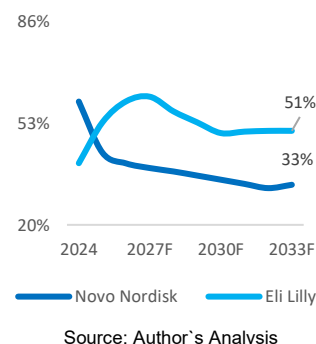


Table 9. Probability of Success per Trial Phase

Phase 1	7.9%
Phase 2	15.1%
Phase 3	52.4%
Submission and/or approval	90.6%

Source: Biomedtracker and Pharmapremia

Figure 35. Obesity: Duopoly Market Shares



U.S. (Medicare negotiations post-IRA), it is believed that new launches will be able to preserve product-mix and that controlling active pharmaceutical ingredient production will ensure cost efficiency, supply security, and quality. This, combined with fill-finish investments and strong pricing power from patented drugs in the majority of the markets, firmly stabilizes future profitability.

R&D is the primary engine of revenue growth at Novo Nordisk and is forecasted to be constant in relation to sales. It supports two main future pillars:

- **Market leadership retention** in diabetes and obesity, replacing expiring drugs with next-generation therapies like CagriSema and Amycretin. This is crucial given Eli Lilly's pipeline, such as Mounjaro and Zepbound, which are expected to erode market share before Novo Nordisk patent expirations.
- **New product development** across other pipeline areas, including cardiovascular and emerging indications such as Alzheimer's disease.

Despite Novo Nordisk's effective tax rate being below Denmark's corporate tax rate of 22% mainly due to **low-tax jurisdictions** and **R&D tax incentives**, the **22%** is used in the forecast to assure a margin of safety regarding the Danish corporate tax policy changes.

Novo Nordisk adopts a **conservative financial policy**, reflected in the modeled **deleveraging over the forecast period** as we anticipate Novo Nordisk to maintain strong free cash flow generation. Leverage spiked in 2024 due to the debt-financed Catalent acquisition from Novo Holdings but remained within healthy bounds. Given the company's organic growth prospects and historically conservative financial policy it is believed that a **scenario of another debt-funded acquisition is not likely** in the future.

Concerning **capital expenditures**, for the years 2024, 2025, 2026 management guidance was used. It is stated that capex is expected to be **DKK 45 billion in 2024 and to be low double digits in the coming years** for future expansions of the supply chain. The short-term nature of Novo Nordisk's PP&E investments is primarily expansionary, aimed at increasing production capacity. These investments are mainly directed toward the construction and expansion of production sites, both for **API** and **fill-finish operations**, which is the final stage of drug manufacturing (including packaging and labeling). This capex strategy aligns with the 2024 acquisition of Catalent's facilities. Toward the **end of the forecast period**, a higher proportion of **capex shifts toward maintenance**. For more details regarding assumptions made, *Appendix 6: Forecasting Assumptions* can be consulted.

Given the strong increase in capital investments, the company guided no new share buyback plans in 2025 and overall discretionary spending. However, **share repurchases are expected to resume over the forecast period** in line with past practice, as no contrary guidance has been issued by management.

Concerning dividends, historically, the payout has remained around **44% of net income**, with a balance between rewarding shareholders and retaining capital for strategic investments, including R&D and capacity expansion. In this forecast, the dividend payout ratio is modeled to **increase gradually from the current 44% to 65% by 2033**, which aligns with the company's **maturing growth profile** and expected **reduction in capital intensity** beyond the near-term investment cycle.

Figure 36. Obesity: NN GLP-1 average price/month (DKK)

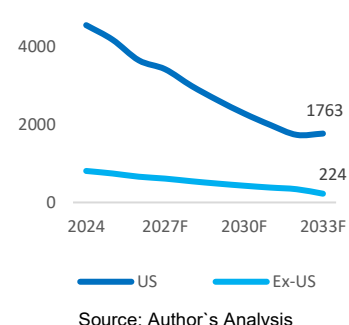


Figure 37. Capex Evolution

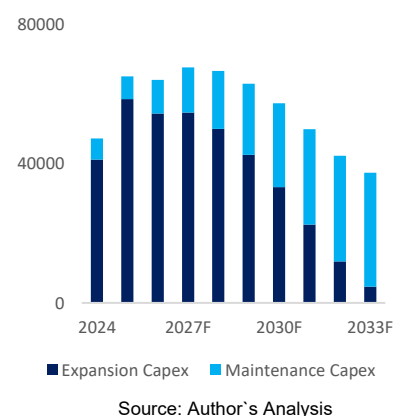
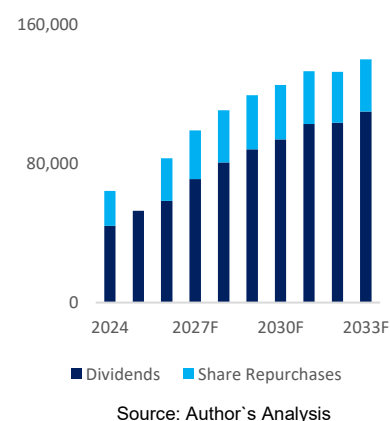


Figure 38. Shareholders Total Return Evolution



Discount Rate

To estimate the **cost of equity**, two approaches were used. The first approach was to find the **average unlevered beta of Drugs (pharmaceutical) industry companies and adjust the company's capital structure**. The second approach was a regression between the stock price and the OMXC25 index. The first method was considered because it made more sense for the case and gave a more conservative value. **Market risk premium value for Denmark was taken from a 2025 survey performed by Pablo Fernandez, Diego Garcia and Lucia Acín.**

To estimate the **cost of debt**, the first method was using the average ratio of interest expenses/total debt. The second approach was to begin with the current risk-free rate to borrow in the company's denominated currency (Danish Krone) and add a spread for both company risk and country risk. A third approach was used to determine the cost of debt, the **yield to maturity of the Novo Nordisk bonds** with the furthest maturity, which was 3.63%. This method presented the highest pre-tax cost of debt, and due to the perception of a better depiction of the current market risk sentiment towards Novo Nordisk, the **3.63%** pre-tax cost of debt was used.

The total discount rate is computed using the Weighted Average Cost of Capital (WACC) formula, which is as follows:

$$WACC = \frac{\text{Cost of Equity} * \text{Total Equity}}{\text{Debt} + \text{Equity}} + \frac{\text{Cost of debt} * (1 - \text{Taxes}) * \text{Total Debt}}{\text{Debt} + \text{Equity}}$$

After applying the WACC formula with the estimated parameters, NN's **WACC is determined to be 6.4%**. Please refer to *Appendix 14 and 15* for more information.

Equity value

After calculating the weighted average cost of capital and forecasting the cash flows for the 2026-2033 period I was able to compute the firm value. Starting with net operating profit after tax (NOPAT), we added the effects of non-cash charges such as amortization and depreciation and then adjusted for changes in Net Working Capital and capital expenditures (capex). This led to a **positive FCFF from 2026 to 2033** as depicted in table 14. The terminal value was calculated by applying a terminal **growth rate (g) of 1.0%**, based on the average **sustainable growth rate** from the 2031-2033 period (more detailed in *Appendix 17*).

To determine the Enterprise Value, I applied a discount factor to both the FCFF and the Terminal Value, based on the previously calculated WACC. Starting from this **Enterprise Value of DKK 2,671,172 million**, I then added cash and subtracted debt, minorities (+associates) and pension & provisions. This yielded an **Equity Value of DKK 2,464,754 million**, which, when divided by the number of outstanding shares (4,453.9 million), resulted in a **price target of DKK 553.4** per Novo Nordisk share (upside of 29.7%). Please refer to *Appendix 16* for more information.

Scenarios

The **bear case** encompasses that NN continues to lose even more **market share** in diabetes and obesity, struggling to ramp up next generation drugs, losing competitiveness by a large degree against Eli Lilly and also suffering fiercely competition from GLP-1 generics. **Pricing in the US** is also affected considerably in this scenario, as regulatory changes introduced by the IRA and the broader political push for lower healthcare costs are a possibility. This scenario presents a price target of **DKK 338.7 per share** (downside of -20.6%). Please refer to *Appendix 18*.

The **bull case** assumes NN **maintains 2024 market shares** in the long run through innovation (such as oral semaglutide, amycretin, new generation amylin). This scenario presents a price target of **DKK 796.9 per share** (upside of 86.8%).

Table 10. Beta computation- Sector approach

	2025
Unlevered Beta-Drugs (Pharmaceutical) industry	0.95
Tax rate	22.00%
Debt-Equity (Novo Nordisk)	0.42
Novo Nordisk Levered Beta	1.26

Source: Author's Analysis

Table 11. Cost of Equity

	2025
Risk Free rate	2.48%
Levered Beta	1.26
Market Risk Premium	5.10%
Cost of Equity	8.22%

Source: Author's Analysis

Table 12. After-tax Cost of Debt

	2025
Cost of debt	3.63%
Tax Rate	22.00%
After-tax cost of debt	2.83%

Source: Author's Analysis

Table 13. WACC

Target D/E	71.6%
Target D/V	41.7%
Target WACC	6.4%

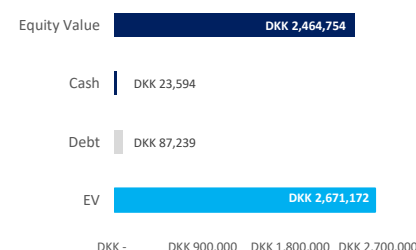
Source: Author's Analysis

Table 14. Present Value of FCFF

Forecast Year	Present Value of FCFF
2026 F	79,620
2027 F	85,826
2028 F	96,455
2029 F	105,104
2030 F	109,449
2031 F	111,008
2032 F	109,056
2033 F	105,847
Terminal Value	1,868,807
Enterprise Value	2,671,172

Source: Author's Analysis

Figure 39. Equity value from FCFF (base case, DKK Mm)



Source: Author's Analysis

Relative Valuation

Novo Nordisk peers: **Eli Lilly, Pfizer, AstraZeneca, and Sanofi**, were chosen because they are large-cap pharmaceutical companies with similar business models focused on patented drugs, therapeutic overlap, global scale, and heavy R&D investment. Please refer *Appendix 12* for further information.

Eli Lilly is the most direct peer, competing head-to-head with Novo Nordisk in diabetes and obesity, especially in GLP-1 drugs. Sanofi, though less active now, was a major diabetes player and remains relevant due to historical overlap. Pfizer and AstraZeneca, while broader in focus, share Novo Nordisk's scale and operate in related therapeutic areas like cardiometabolic and chronic diseases.

Accounting differences between US GAAP and IFRS

Due to accounting differences, **P/S and EV/Sales are the cleanest for cross-border pharma comparisons** since revenue is mostly treated the same. P/E and EV/Ebitda get distorted because US GAAP fully expenses R&D while IFRS may capitalize it, inflating earnings and Ebitda. **P/B is the least reliable** due to big differences in how book value reflects R&D and intangibles.

Comparison- P/S and EV/Sales as the most reliable metrics

Novo Nordisk's P/E ratio of 25.98 is nearly identical to the adjusted peer average of 25.51, once Eli Lilly's outlier value of 81.67 is removed. This suggests Novo is reasonably valued on an earnings basis compared to other large pharma companies, assuming similar accounting treatment.

However, its **price-to-sales** ratio of 9.03 tells a different story. While it appears close to the full peer average of 9.25, that figure is inflated by Eli Lilly's 19.20. Excluding Lilly, the average drops to just 3.26, making Novo look significantly more expensive than Pfizer, Sanofi, and AstraZeneca. This **premium indicates Novo's strong position in the GLP-1 obesity and diabetes market, shared with Eli Lilly**. Still, **Lilly is often seen as having a broader, more diversified pipeline with high-impact opportunities** in areas like Alzheimer's, oncology, and pain, which may justify its even higher multiples.

Novo Nordisk's price-to-book ratio is 18.28 versus an adjusted peer average of 2.96 (excluding Lilly's 58.00). But in pharma, P/B is a weak metric due to the accounting treatment of R&D, which is expensed under US GAAP and partially capitalized under IFRS, making book value inconsistent and often understated.

EV/Sales and EV/Ebitda show a similar pattern. Novo Nordisk trades at 9.27x sales and 18.27x Ebitda, well **above peers like Pfizer and Sanofi, but below Eli Lilly**. This depicts **strong growth expectations in the GLP-1 segment, though not the same pipeline-driven upside priced into Lilly**.

In summary, **Eli Lilly is the most expensive among peers across all valuation metrics**, driven by **high market expectations for its obesity and Alzheimer's drugs**. Its **valuation** may be somewhat inflated due to **US GAAP's treatment of R&D expenses**. **Novo Nordisk** also trades at a **premium** but with **more balanced ratios under IFRS**, which capitalizes development costs. AstraZeneca and Sanofi have moderate valuations but also mature pipelines. Pfizer appears cheapest, mainly due to patent expirations, slowing growth, and M&A-related balance sheet strain. Overall, the **market is pricing in strong future growth for Lilly and Novo**, while being more cautious on Pfizer and Sanofi.

Table 15. Multiples comparison

	Novo Nordisk	Eli Lilly	Pfizer	AstraZeneca	Sanofi
Price/Earnings per Share	25.98	81.67	20.11	33.41	23.01
Price/Sales	9.03	19.20	2.54	4.35	2.89
Price/Book	18.28	58.00	1.75	5.50	1.64
EV/Sales	9.27	19.78	3.14	4.80	3.07
EV/EBITDA	18.27	59.91	9.96	15.61	13.13

Source: Bloomberg & Author's Analysis

Table 16. Distortion Risks: US Gaap vs IFRS

Metric	Distortion Risk	Key Issues
P/E	Moderate-High	R&D expensing (GAAP) vs capitalization (IFRS) distorts EPS
P/B	Very High	Major differences in treatment of R&D and intangibles
P/S	Low	Revenue recognition largely consistent
EV/Sales	Low	Market-based, top-line driven
EV/EBITDA	Moderate	EBITDA inflated under IFRS due to capitalized R&D

Source: Author's Analysis

7. Financial Analysis

Scaling New Heights Amidst Unprecedented Demand

Novo Nordisk delivered another year of stellar financial performance in 2024, largely on the back of the phenomenal demand for its GLP-1 based treatments, Ozempic and Wegovy. The company reported robust total sales of **DKK 290.4 billion** in 2024, marking a **25.0% increase** compared to FY23. The diabetes and obesity care segment were the primary growth engine, with sales surging by **26.3% to DKK 271.8 billion**. Please refer to *Appendix 4* for more detailed information.

- **Obesity Care** sales experienced exceptional growth, surging by **56.5% to DKK 65.1 billion**, primarily driven by Wegovy. The growth was boosted as the U.S. FDA classified Wegovy as unrestricted in 2024, and the company expanded its dosage formulation in over 10 new markets outside the U.S.
- **GLP-1 Diabetes** sales grew by **6.4% in DKK**, fueled by the strong volume demand for Ozempic, which still has low market penetration globally, at about 6.4% of total patients.

Looking ahead, it is forecasted Novo Nordisk to maintain an industry-leading position fueling sales growth rate in the next 5 years. Specifically, **overall revenue growth is forecast to remain strong at 5%-15% in 2025 and 2027, moderating to close to 3.6% in 2029**. The confidence is underpinned by the strong patent-protected drug portfolio and the growing patient population in its core therapeutic areas despite predicted market share losses and pricing pressures.

Sustained Profitability in the Face of Pricing and Policy Headwinds

Novo Nordisk not only achieved impressive revenue growth but also maintained a highly profitable operational structure throughout 2024. Net profit reached **DKK 100.9 billion**, up **20.7% from 2023**. Despite anticipated pricing pressures, especially in the high-margin U.S. GLP-1 market, the company is expected to **sustain best-in-class profitability levels** throughout the forecast period, supported by its **strong market position, operational efficiency, and strategic investments in innovation and capacity**.

Gross margin, already high at **84.7% in 2024**, is forecasted to remain remarkably stable at around **83.8–83.9%** through 2033, showcasing **resilience despite potential cost pressures**, including potential API tariffs. Given that API represents only a fraction of the cost of goods sold, even a hypothetical 25% tariff would have limited margin impact. The company is also growing U.S. footprint (ex. Clayton and Bloomington locations), offering flexibility to localize part of the supply chain, mitigating trade-related risks.

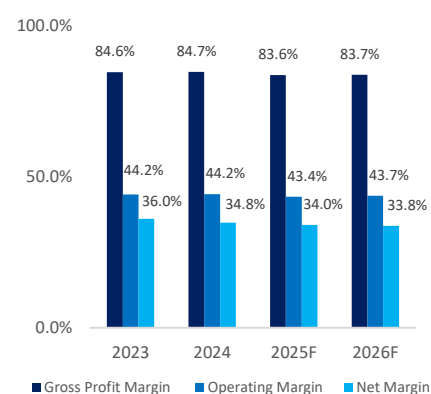
Operating margin is projected to improve steadily from **44.2% in 2024 to 45.2% by 2033** as the company **is not sacrificing margin for growth** but rather using its dominant position to fund innovation while preserving profitability.

Net margin remains stable and strong, slightly rising from **34.8% in 2024 to 35.3% by 2033**, placing Novo Nordisk among the most profitable companies globally.

Strong Cash Generation: Fortifying the Balance Sheet by deleveraging

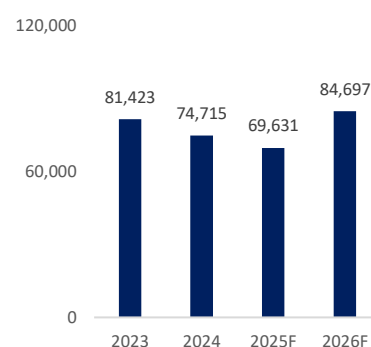
Novo Nordisk's financial position is expected to strengthen considerably over the forecast period, building on an already disciplined capital structure in the real year 2024. The company's strategy of using its strong cash flows to deleverage and maintain balance sheet flexibility is evident across its solvency and liquidity metrics.

Figure 40. Profitability Ratios



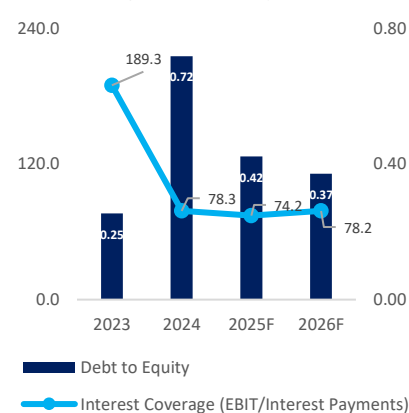
Source: Bloomberg & Author's Analysis

Figure 41. Free Cash Flow



Source: Bloomberg & Author's Analysis

Figure 42. Solvency Ratios



Source: Bloomberg & Author's Analysis

In 2024, Novo Nordisk's **debt-to-equity ratio** stood at **0.72x**, marking the peak of its leverage cycle. However, a strong deleveraging trend is forecasted over the next decade with **debt to equity** projected to decline steadily to **0.05x by 2033**.

This trend is underpinned by the company's expected strong **free cash flow generation**, which will be largely channelled to deleverage and not discretionary spending, in the short-term. Notably, share buybacks are paused in 2025 according to the company.

Moreover, **interest coverage ratios** are forecasted to remain extraordinarily high, rising from **78.3x in 2024** to **221.5x in 2033**, with robust growth in operating income and minimal interest burden.

The company has a **committed long-term EUR 3 billion (circa DKK 22.8 billion) revolving credit facility** that is not for renewal until 2031. The facility provides ample coverage of short-term debt maturities and strengthens Novo Nordisk's liquidity. Given the easy access to money markets as well as capital markets, it is forecasted that the company will be relatively aligned, in terms of liquidity ratios, with the present situation, therefore depicting a **gradual stabilization**:

- The **current ratio** is expected to stabilize at **0.57x** by 2033;
- The **quick ratio** follows a similar trend, going from **0.55x in 2024** to **0.43x by 2033**;
- Most notably, the **cash ratio** slightly increases to **0.08x in 2033**, from its level of **0.07x** in 2024.

The gradual stabilization of these liquidity ratios is in line with the continuous **disciplined approach to working capital management** and growing cash buffers, which is done without compromising growth ambitions.

Efficiency- Scale and Leverage Effects

In the forecasted period, **ROE decreases from 70.4% in 2024 to about 33.0% in 2033**. This decrease can be primarily explained by a **decrease in leverage**, in line with the company's conservative financial policy following the acquisition of Catalent in 2024.

Another explanatory component is the **decrease in efficiency at the asset turnover level**. For the company to maintain its leadership, especially in Diabetes and Obesity, it requires continuous and heavy investment in production capacity. The capex of DKK 65 billion forecasted for 2025 does not represent an end in itself, but rather an intense phase of an expansion cycle (3-5 years). As more assets are built and added to the balance sheet, the **ability to generate proportionally higher sales and profits in relation to that growing asset base naturally decreases**, resulting in sustained pressure on asset turnover and, consequently, on ROE. As Novo Nordisk grows exponentially and reaches a massive global scale, it is natural for efficiency ratios to start converging to more sustainable levels. This is also in line with the law of diminishing returns to scale.

However, it should be noted that even the approximately 33% ROE forecasted for 2033 is **still above the industry average**, which according to Damodaran data is close to 10.5% for the pharmaceutical industry.

Return on assets follows a similar trend, also decreasing from 21.7% in 2024 to 17.0% in 2033, as it is affected by the asset turnover component too, despite **still being above industry level**.

Figure 43. Liquidity Ratios

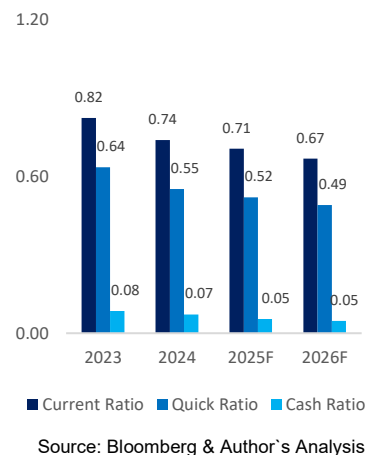
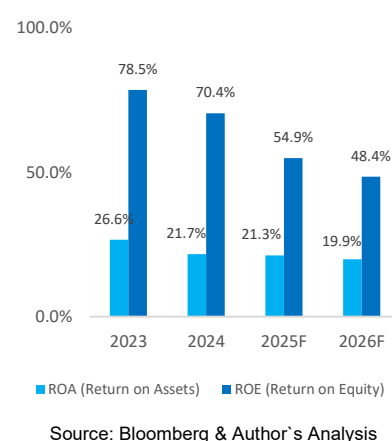


Figure 44. Efficiency Ratios



8. Investment Risks

Investment Risks

Novo Nordisk is exposed to a variety of risks that may significantly influence its business operations, strategic goals, and investor returns. These risks are assessed in terms of likelihood and impact, with mitigation strategies in place. The risks can be broadly categorized into i) **Market & Commercial Risks**; ii) **Political, Legal & Regulatory Risks**; iii) **Operational Risks**; iv) **Environmental & Supply Chain Risks**; and, v) **Technological & Intellectual Property Risks**.

Market & Commercial Risks

Global Healthcare Expenditure Pressures (M1)

Novo Nordisk works in a highly cost-sensitive climate where the **financial strain on healthcare systems worldwide** is increasing. Value-based pricing schemes, government driven cost containment initiatives and heightened scrutiny of medication prices could put pressure on margins. Profitability may be impacted by pricing caps or reference pricing in important markets like the US or the EU. Novo Nordisk's **patient-centric value propositions** and evidence-based outcomes research help to lessen these impacts.

Competition and Market Access Barriers (M2)

The pharmaceutical industry is fiercely competitive, and both established players and biotech startups are often coming up with new ideas. Significant revenue erosion may arise from any loss of market exclusivity, adverse assessment results, or delays in market entry. In the medium to long term, Novo Nordisk's GLP-1s are particularly at risk due to the introduction of **biosimilars or generics**. By pursuing lifecycle management techniques for major products and keeping a broad innovation pipeline, which frequently consists of **next-generation products**, the company reduces these risks.

Emerging Market Volatility (M3)

Although emerging markets present strong growth opportunities, they also carry macroeconomic, political, and operational uncertainties. Foreign exchange volatility, inflationary pressures, and unstable healthcare funding in countries such as Brazil, Turkey, or India can impair sales performance. Novo Nordisk adopts diversified regional strategies and pricing flexibility to navigate these challenges. Furthermore, the **exposure of the company to these countries is less than 20% of FY24 sales**.

Political, Legal & Regulatory Risks

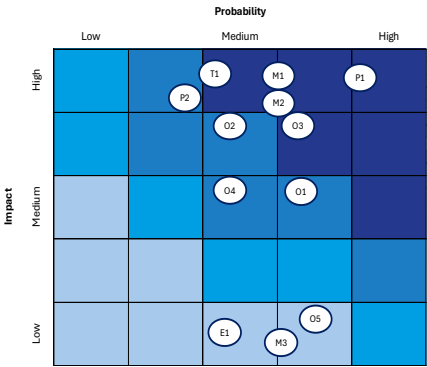
Healthcare Policy Reform (P1)

Ongoing political debates, especially in the **U.S., around drug pricing reform**, Medicare negotiation powers, or regulatory acceleration programs can lead to pricing pressures or stricter approval requirements. Changes in government or political instability in key operating regions could further disrupt market conditions. Novo Nordisk actively **engages with policymakers and industry associations** to adapt to regulatory developments and advocate for sustainable healthcare funding models.

Regulatory and Compliance Risk (P2)

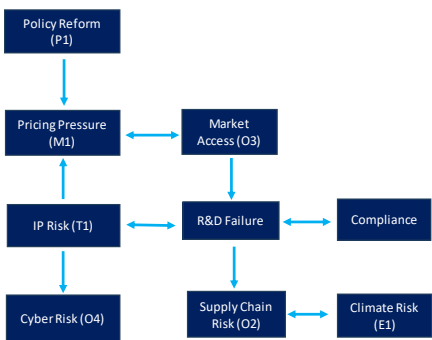
Failure to **comply with global regulatory standards**, whether from EMA, FDA, or local authorities, can lead to approval delays, product recalls, or penalties. Regulatory scrutiny is particularly high in clinical trials, manufacturing quality, and pharmacovigilance. Novo Nordisk has implemented strict **internal compliance controls, periodic audits, and rigorous pharmacovigilance frameworks** to mitigate these risks.

Figure 45. Risk Matrix



Source: Author's Analysis

Figure 46. Risks Relationships



Source: Author's Analysis

Operational Risks

Please refer to *Appendix 20*, for the systematic presentation of the operational risks as well as their impact and the mitigating actions disclosed by the company.

Research and Clinical Development Failures (O1)

Novo Nordisk's growth is heavily dependent on the **success of its R&D pipeline**. Delays, setbacks, or failures in clinical trials or regulatory submissions could reduce future revenue streams and investor confidence. For instance, unsuccessful outcomes in obesity or cardiovascular indication trials could impact strategic growth projections. Mitigation includes **early-phase risk screening, adaptive trial designs, and close regulatory collaboration**.

Supply Chain Disruption and Product Quality (O2)

Geopolitical shocks, **raw material scarcity**, and manufacturing complexity pose risks to timely delivery and product quality. Any disruption could lead to product shortages, reputational damage, and patient safety concerns. Novo Nordisk continuously invests in supply chain resilience, expanding global production capabilities and implementing advanced quality control systems. An example of this is **Catalent's three fill-finish sites acquisition** in 2024.

Commercialization Execution (O3)

Market access barriers, payer resistance, and health system pressures could delay product uptake or reduce pricing power. Economic crises or health emergencies such as pandemics can shift healthcare priorities and affect commercial rollout strategies. Novo Nordisk counters this through **targeted pricing models, real-world data generation, and payer engagement strategies**.

Cybersecurity and IT Infrastructure (O4)

The digital transformation of pharmaceutical operations introduces heightened cybersecurity risks. Data breaches or IT outages could disrupt clinical trials, manufacturing, or commercial operations and expose the company to legal liabilities. Novo Nordisk maintains a **strong IT governance framework**, with cyber risk assessments, backup protocols, and business continuity planning.

Financial Exposure – FX and Taxation (O5)

Novo Nordisk operates globally in multiple currencies and jurisdictions. **Volatility in foreign exchange markets** and changes in tax regimes may adversely affect earnings and free cash flow. The company **uses hedging instruments** and **centralized treasury operations** to stabilize cash flow impacts and proactively engages with tax authorities to ensure compliance.

Environmental & Supply Chain Risks

Climate Change and Environmental Disruption (E1)

Manufacturing and supply chains may be hampered by climate-related disasters like heat waves, floods, or infrastructural failures. Additionally, pressure for green transformation throughout the value chain is created by **rising expectations for sustainable operations**. To lessen these long-term risks, Novo Nordisk has set aggressive **environmental goals, such as carbon neutrality and circular production objectives**.

Technological & Intellectual Property Risks

Patent Expiry and IP Litigation (T1)

Loss of patent protection, particularly in high-margin diabetes treatments, could lead to **aggressive biosimilar competition** and revenue loss. Legal disputes over

Figure 47. Operational Risk Matrix

	Probability			
	Low	Medium	High	
Impact	High			
	Medium		Product Supply, Quality and Safety Risks	Commercialisation Risks
	Low		IT Security Risks	Research and Clinical Pipeline Risks
	Low			Financial Risks

Source: Author's Analysis & Annual Report

Figure 48. Industry Risk Matrix

	High likely (5)	Likely (4)	Occasionally (3)	Seldom (2)	Unlikely (1)
High likely (5)			Patent expiration	Pricing pressure	R&D
Likely (4)		Environmental concerns	Product approval	Cyber security	
Occasionally (3)			Supply chain	Product liability	
Seldom (2)				Regulatory changes	Product safety
Unlikely (1)					Safe work conditions
	Insignificant (A)	Marginal (B)	Moderate (C)	Critical (D)	Catastrophic (E)

Source: Author's Analysis

patents or third-party claims may also result in costly litigation and strategic setbacks. Novo Nordisk continually **reviews its IP portfolio, implements defensive strategies**, and allocates legal resources to preserve market exclusivity.

Price Target Sensitivity

Sensitivity Analysis

Two important variables were chosen to perform sensitivity analysis: **Cost of capital (WACC)** and **long-term sustainable growth rate (g)**. Upon stressing the **WACC rate by 50bps** increase, it is expected a **DKK 55.5 decrease** in the current price target, all other factors remaining the same. On the other hand, if the WACC rate is decreased by 50bps, it is expected a **DKK 67.1 increase** in the current price target, all other factors remaining the same.

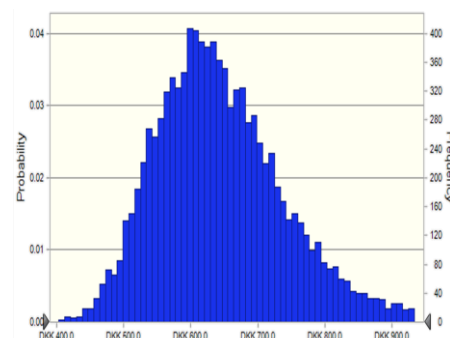
When facing an increase in the **long-term sustainable growth rate of 50bps**, the price target **increases by DKK 75.5**, all other factors remaining stable. On the other hand, if g is decreased by 50bps, it is expected a **DKK 60.2 decrease** in the current price target, ceteris paribus. Please refer to *Appendix 19* for the full output result of the sensitivity analysis table.

Monte Carlo Simulation

A complementary analysis of the price target was made through the **Monte Carlo simulation**, changing the following key drivers: a) Long-term sustainable growth rate c) WACC rate. After **10,000 trials**, the simulation returned an average price target of DKK 618.0 and a median value of DKK 614.8, both values reinforcing the buy recommendation (DKK 553.4). This likely indicates that I am using conservative assumptions, which were indeed considered taking in account the risks the company is subjected to.

The **distribution is slightly positively skewed**, with mean > median > current price target, depicting an upside nonlinearly higher than the downside and therefore reinforcing the medium investment risk despite all the pricing/ regulatory, competition and pipeline risks.

Figure 49. Monte Carlo Simulation



Source: Author's Analysis via Crystal Ball's Excel add-in

Appendices

Appendix 1: Statement of Financial Position (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	Sparkline	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
INCOME STATEMENT																	
BALANCE SHEET																	
Assets																	
Intangible assets	DKK Millions	Annual Report & Bloomberg		20,657	43,171	50,939	60,406	111,090	114,270	117,484	121,160	124,977	128,731	132,233	135,269	137,759	140,086
Property, plant and equipment	DKK Millions	Annual Report & Bloomberg		50,269	55,362	66,671	90,961	162,488	220,920	275,219	329,813	379,749	422,284	455,509	477,963	489,857	494,507
Investment In Affiliates/Joint Ventures	DKK Millions	Annual Report & Bloomberg		582	525	327	410	400	400	400	400	400	400	400	400	400	400
Other financial assets	DKK Millions	Annual Report & Bloomberg		1,066	916	1,016	1,253	2,277	2,277	2,277	2,277	2,277	2,277	2,277	2,277	2,277	2,277
Deferred Tax Assets (Long-Term)	DKK Millions	Annual Report & Bloomberg		5,865	8,672	13,904	20,380	24,627	24,627	24,627	24,627	24,627	24,627	24,627	24,627	24,627	24,627
Other non-current assets	DKK Millions	Annual Report & Bloomberg		674	267	206	1,430	4,016	4,016	4,016	4,016	4,016	4,016	4,016	4,016	4,016	4,016
Non-current assets	DKK Millions	Annual Report & Bloomberg		79,113	108,913	133,063	174,840	304,898	366,510	424,024	482,293	536,045	582,334	619,062	644,553	658,936	665,913
Inventories	DKK Millions	Annual Report & Bloomberg		18,536	19,621	24,388	31,811	40,849	44,384	46,675	52,613	56,003	57,655	58,092	56,623	54,510	55,445
Trade receivables	DKK Millions	Annual Report & Bloomberg		27,734	40,643	50,560	64,770	71,949	78,802	83,962	96,272	103,657	107,629	109,212	106,954	103,288	105,823
Other current assets	DKK Millions	Annual Report & Bloomberg		4,161	5,037	6,005	8,068	12,612	12,612	12,612	12,612	12,612	12,612	12,612	12,612	12,612	12,612
Deferred Income Tax Asset (Short-Term)	DKK Millions	Annual Report & Bloomberg		289	1,119	940	2,423	2,853	2,853	2,853	2,853	2,853	2,853	2,853	2,853	2,853	2,853
Derivatives – assets	DKK Millions	Annual Report & Bloomberg		2,332	1,690	2,727	2,344	6,326	6,326	6,326	6,326	6,326	6,326	6,326	6,326	6,326	6,326
Short-term investments	DKK Millions	Annual Report & Bloomberg		0	6,765	10,921	15,838	10,653	10,653	10,653	10,653	10,653	10,653	10,653	10,653	10,653	10,653
Cash	DKK Millions	Annual Report & Bloomberg		12,757	10,720	12,653	14,392	15,655	12,941	12,389	12,386	15,366	17,884	16,939	17,237	25,338	34,079
Current assets	DKK Millions	Annual Report & Bloomberg		65,809	85,595	108,194	139,646	160,897	168,571	175,470	193,715	207,470	215,612	216,686	213,258	215,580	227,792
Total Assets	DKK Millions	Annual Report & Bloomberg		144,922	194,508	241,257	314,486	465,795	535,080	599,494	676,008	743,515	797,946	835,747	857,811	874,515	893,705
Equity																	
Share capital	DKK Millions	Annual Report & Bloomberg		470	462	456	451	446	446	446	446	446	446	446	446	446	446
Retained earnings and other	DKK Millions	Annual Report & Bloomberg		63,774	72,004	80,587	104,839	144,448	205,437	266,210	332,569	400,301	466,840	529,487	580,051	624,377	666,682
Treasury shares	DKK Millions	Annual Report & Bloomberg		-8	-6	-6	-5	-2	-2	-24,542	-52,542	-82,540	-113,619	-144,917	-175,418	-204,731	-234,702
Other Equity	DKK Millions	Annual Report & Bloomberg		-911	-1,714	2,449	1,276	-1,406	1,246	4,050	7,249	10,677	14,228	17,804	21,289	24,638	28,063
Consolidated equity	DKK Millions	Annual Report & Bloomberg		63,325	70,746	83,486	106,561	143,486	207,127	246,163	287,722	328,884	367,895	402,820	426,368	444,730	460,489
Liabilities																	
Long Term Debt	DKK Millions	Annual Report & Bloomberg		2,897	12,961	24,318	20,528	89,674	74,132	75,469	80,756	82,473	76,155	61,158	44,777	29,015	15,482
Pension/Postretirement Liabilities	DKK Millions	Annual Report & Bloomberg		1,399	1,280	762	742	903	903	903	903	903	903	903	903	903	903
Deferred Tax Liabilities (Long-Term)	DKK Millions	Annual Report & Bloomberg		2,502	5,271	7,061	10,162	5,426	5,426	5,426	5,426	5,426	5,426	5,426	5,426	5,426	5,426
Other Noncurrent Liabilities	DKK Millions	Annual Report & Bloomberg		4526	4,734	4,690	6,838	8,778	8,778	8,778	8,778	8,778	8,778	8,778	8,778	8,778	8,778
Non-current liabilities	DKK Millions	Annual Report & Bloomberg		11,324	24,246	36,831	38,270	104,781	89,239	90,576	95,863	97,580	91,262	76,265	59,884	44,122	30,589
Short-Term Borrowings	DKK Millions	Annual Report & Bloomberg		7,459	13,684	1,466	6,478	13,113	13,107	15,779	19,636	23,027	24,173	21,893	17,961	12,972	7,682
Derivatives – liabilities	DKK Millions	Annual Report & Bloomberg		1,365	2,184	2,903	1,272	7,531	7,531	7,531	7,531	7,531	7,531	7,531	7,531	7,531	7,531
Short-Term Provisions	DKK Millions	Annual Report & Bloomberg		34,814	51,520	70,287	100,478	120,329	141,470	162,611	183,752	204,893	226,034	247,175	268,316	289,457	310,598
Trade payables	DKK Millions	Annual Report & Bloomberg		5,717	8,870	15,587	25,606	28,846	28,897	29,125	33,794	33,891	33,343	32,354	30,043	27,994	29,107
Other current liabilities	DKK Millions	Annual Report & Bloomberg		17,005	19,600	23,606	28,705	37,993	37,993	37,993	37,993	37,993	37,993	37,993	37,993	37,993	37,993
Income Taxes Accrued/Payable	DKK Millions	Annual Report & Bloomberg		3,913	3,658	7,091	7,116	9,716	9,716	9,716	9,716	9,716	9,716	9,716	9,716	9,716	9,716
Current liabilities	DKK Millions	Annual Report & Bloomberg		70,273	99,516	120,940	169,655	217,528	238,715	262,754	292,422	317,050	338,789	356,662	371,559	385,664	402,627
Total equity and liabilities	DKK Millions	Annual Report & Bloomberg		144,922	194,508	241,257	314,486	465,795	535,080	599,494	676,008	743,515	797,946	835,747	857,811	874,515	893,705
Control: Assets = Liabilities + Equity																	

Appendix 2: Income Statement (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	Sparkline	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
INCOME STATEMENT																	
Sales	DKK Millions	Annual Report & Bloomberg		126,946	140,800	176,954	232,261	290,403	334,002	353,135	402,904	431,671	447,236	450,363	438,913	421,817	431,270
Diabetes & Obesity Care	DKK Millions	Annual Report & Bloomberg		108,020	121,597	156,412	215,098	271,764	315,626	334,929	384,553	413,036	428,152	430,943	419,136	401,568	410,438
Rare Disease	DKK Millions	Annual Report & Bloomberg		18,926	19,203	20,542	17,163	18,639	18,376	18,206	18,124	17,995	17,888	17,677	17,449	17,266	17,110
Other Pipeline	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	227	640	1,197	1,743	2,328	2,984	3,722
Cost of goods sold	DKK Millions	Annual Report & Bloomberg		-20,932	-23,658	-28,448	-35,765	-44,522	-54,694	-57,522	-65,023	-69,409	-71,856	-72,409	-70,781	-68,335	-69,899
Diabetes & Obesity Care	DKK Millions	Annual Report & Bloomberg		-17,715	-19,363	-23,405	-30,483	-37,760	-47,344	-50,239	-57,683	-61,955	-64,223	-64,641	-62,870	-60,235	-61,566
Rare Disease	DKK Millions	Annual Report & Bloomberg		-3,217	-4,295	-5,043	-5,282	-6,762	-7,350	-7,283	-7,250	-7,198	-7,155	-7,071	-6,979	-6,906	-6,844
Other Pipeline	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	-91	-256	-479	-697	-931	-1,193	-1,489
Gross profit	DKK Millions	Annual Report & Bloomberg		106,014	117,142	148,506	196,496	245,881	279,308	295,613	337,881	362,261	375,379	377,954	368,132	353,482	361,372
Operating Expenses																	
Sales and distribution costs	DKK Millions	Annual Report & Bloomberg		-32,928	-37,008	-46,217	-56,743	-62,101	-71,424	-75,516	-86,159	-92,310	-95,639	-96,308	-93,859	-90,203	-92,225
Administrative costs	DKK Millions	Annual Report & Bloomberg		-3,958	-4,050	-4,467	-4,855	-5,276	-6,068	-6,416	-7,320	-7,843	-8,125	-8,182	-7,974	-7,664	-7,835
Research and Development expense	DKK Millions	Annual Report & Bloomberg		-15,462	-17,772	-24,047	-32,443	-48,062	-54,567	-57,344	-64,821	-69,116	-71,431	-71,837	-70,051	-67,447	-68,857
Diabetes & Obesity Care	DKK Millions	Annual Report & Bloomberg		-13,535	-15,600	-20,157	-28,073	-41,490	-48,093	-50,935	-58,367	-62,568	-64,731	-65,025	-63,119	-60,354	-61,566
Rare Disease	DKK Millions	Annual Report & Bloomberg		-1,927	-2,172	-3,890	-4,370	-6,572	-6,474	-6,409	-6,375	-6,324	-6,281	-6,202	-6,117	-6,048	-5,989
Other Pipeline	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	-79	-224	-419	-610	-815	-1,044	-1,303
Other operating income and expenses	DKK Millions	Annual Report & Bloomberg		460	332	1,034	119	-2,103	-2,352	-1,916	-1,531	-926	-214	535	1,251	1,900	2,657
Diabetes & Obesity Care	DKK Millions	Annual Report & Bloomberg		264	199	892	-7	-2,074	-2,126	-1,956	-1,902	-1,673	-1,351	-974	-573	-189	174
Rare Disease	DKK Millions	Annual Report & Bloomberg		196	133	142	126	-29	-226	41	370	744	1,130	1,499	1,810	2,071	2,461
Other Pipeline	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	-1	-4	-7	-10	-14	-18	-22
Recurring operating income	DKK Millions	Annual Report & Bloomberg		54,126	58,644	74,809	102,574	128,339	144,896	154,423	178,050	192,067	199,970	202,162	197,499	190,069	195,112
Other non-operating income (expense)	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
EBITDA	DKK Millions	Annual Report & Bloomberg		61,035	65,866	80,609	109,011	135,772	153,051	165,905	193,062	211,000	222,950	229,107	228,136	223,933	231,641
Operating income (EBIT)	DKK Millions	Annual Report & Bloomberg		54,126	58,644	74,809	102,574	128,339	144,896	154,423	178,050	192,067	199,970	202,162	197,499	190,069	195,112
Interest income on cash equivalents and short-term investments	DKK Millions	Annual Report & Bloomberg		337	231	239	1,069	1,838	445	416	458	483	573	642	634	655	869
Interest expense	DKK Millions	Annual Report & Bloomberg		-390	-289	-378	-542	-1,640	-1,953	-1,974	-2,395	-2,309	-2,085	-2,013	-1,692	-1,297	-881
Other financial income and expense	DKK Millions	Annual Report & Bloomberg		-943	494	-5,608	1,573	-1,346	2,409	0	0	0	0	0	0	0	0
Net financial cost	DKK Millions	Annual Report & Bloomberg		-996	436	-5,747	2,100	-1,148	900	-1,557	-1,937	-1,827	-1,512	-1,371	-1,068	-643	-12
Income before tax	DKK Millions	Annual Report & Bloomberg		53,130	59,080	69,062	104,674	127,191	145,796	152,865	176,113	190,240	198,458	200,791	195,441	189,426	195,100
Income tax	DKK Millions	Annual Report & Bloomberg		-10,992	-11,323	-13,537	-20,991	-26,203	-32,075	-33,630	-38,745	-41,853	-43,661	-44,174	-43,217	-41,674	-42,922
Net income from fully consolidated companies	DKK Millions	Annual Report & Bloomberg		42,138	47,757	55,525	83,683	100,988	113,721	119,235	137,368	148,387	154,798	156,617	153,224	147,752	152,178

Appendix 3: Cash Flow Statement (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	Sparkline	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
INCOME STATEMENT																	
BALANCE SHEET																	
CASH FLOW STATEMENT																	
Net Income	DKK Millions	Annual Report & Bloomberg		42,138	47,757	55,525	83,683	100,988	113,721	119,235	137,368	148,387	154,798	156,617	153,224	147,752	152,178
Property, plant and equipment and intangible assets	DKK Millions	Annual Report & Bloomberg		5,276	5,311	6,553	7,289	8,545	8,155	11,483	15,012	18,933	22,980	26,945	30,638	33,864	36,529
Depreciation	DKK Millions	Annual Report & Bloomberg		4,180	4,396	4,854	5,455	6,033	6,568	9,627	12,937	16,588	20,350	24,020	27,409	30,334	32,701
Amortization	DKK Millions	Annual Report & Bloomberg		2,729	2,836	846	982	1,400	1,587	1,856	2,075	2,345	2,620	2,926	3,228	3,531	3,828
Other Non-Cash Items	DKK Millions	Annual Report & Bloomberg		8,908	10,592	12,145	30,181	23,430	23,793	23,945	24,340	24,569	24,692	24,717	24,626	24,940	24,565
Stock-Based Compensation	DKK Millions	Annual Report & Bloomberg		823	1,040	1539	2,119	2,289	2,652	2,804	3,199	3,428	3,551	3,576	3,485	3,349	3,424
Other Non-Cash Adjustments	DKK Millions	Annual Report & Bloomberg		8,085	9,552	20,606	28,032	21,141	21,141	21,141	21,141	21,141	21,141	21,141	21,141	21,141	21,141
activities, before changes in net working capital	DKK Millions	Annual Report & Bloomberg		56,322	63,660	84,223	121,153	132,963	145,669	154,663	176,720	191,889	202,469	208,279	208,488	206,107	213,273
Change in Inventories	DKK Millions	Annual Report & Bloomberg		-895	-1,085	-4,767	-7,423	-9,038	-3,535	-22,691	-5,938	-3,390	-1,652	-437	1,468	2,113	-935
Change in Accounts Payable	DKK Millions	Annual Report & Bloomberg		-641	3,153	6,917	10,019	3,240	51	227	4,669	96	-548	-989	-2,311	-2,048	1,112
Change in Accounts Receivable	DKK Millions	Annual Report & Bloomberg		-2,822	-12,909	-9,317	-14,210	-7,179	-6,853	-5,160	-12,310	-7,385	-3,972	-1,583	2,257	3,667	-5,532
Change in Other Assets and Liabilities	DKK Millions	Annual Report & Bloomberg		5	2,185	2,631	-631	-982	0	0	0	0	0	0	0	0	0
Change in working capital requirements	DKK Millions	Annual Report & Bloomberg		-4,353	-8,656	-5,336	-12,245	-1,995	-10,336	-7,224	-13,579	-10,678	-6,172	-3,009	1,415	3,732	-2,358
Cash flows provided by operating activities	DKK Millions	Annual Report & Bloomberg		51,969	55,004	78,887	106,908	120,968	135,333	147,439	163,142	181,211	196,298	205,270	209,902	209,839	210,915
Changes in Fixed & Intangible Proceeds from the disposal of property, plant and equipment	DKK Millions	Annual Report & Bloomberg		-22,074	-7,385	-14,753	-38,896	-51,309	-69,767	-68,997	-73,281	-72,686	-69,269	-63,673	-56,129	-48,248	-43,507
Acquisition of Fixed assets	DKK Millions	Annual Report & Bloomberg		-7	0	0	0	0	-65,000	-63,956	-67,530	-66,524	-62,885	-57,245	-49,864	-42,227	-37,351
Maintenance Capex	DKK Millions	Annual Report & Bloomberg		-4,180	-4,396	-4,954	-5,455	-6,033	-6,568	-9,627	-12,937	-16,588	-20,350	-24,020	-27,409	-30,334	-32,701
Expansion Capex	DKK Millions	Annual Report & Bloomberg		-1,645	-1,949	-7,192	-20,351	-41,131	-58,432	-54,269	-54,594	-49,936	-42,535	-33,225	-22,455	-11,893	-4,650
Change in Fixed Intangible Assets	DKK Millions	Annual Report & Bloomberg		-16,256	-1,050	-2,607	-13,900	-4,145	-4,767	-5,040	-6,751	-6,161	-6,384	-6,428	-6,265	-6,021	-6,165
Net Change in LT Investment	DKK Millions	Annual Report & Bloomberg		-12	-5,941	-3,090	-4,996	4,577	0	0	0	0	0	0	0	0	0
Net Cash From Acq & Div	DKK Millions	Annual Report & Bloomberg		-392	-18,283	-7,075	0	-82,163	0	0	0	0	0	0	0	0	0
loans and other long-term financial assets	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flows provided by (used in) investment activities	DKK Millions	Annual Report & Bloomberg		-22,454	-31,609	-24,918	-43,892	-128,895	-69,767	-68,997	-73,281	-72,686	-69,269	-63,673	-56,129	-48,248	-43,507
Dividends Paid	DKK Millions	Annual Report & Bloomberg		-20,121	-21,517	-25,303	-31,767	-44,140	-52,732	-58,462	-71,009	-80,654	-88,259	-93,970	-102,660	-103,427	-109,873
Cash From (Repayment) Debt	DKK Millions	Annual Report & Bloomberg		4,732	15,671	-2,408	-1,467	73,056	-15,548	-4,009	9,144	5,108	-5,172	-17,276	-20,314	-20,750	-18,823
Cash From (Repay) ST Debt	DKK Millions	Annual Report & Bloomberg		5,682	22,160	11,215	0	0	-	-	-	-	-	-	-	-	-
Cash From LT Debt	DKK Millions	Annual Report & Bloomberg		950	-6,689	13,623	-1,467	0	-	-	-	-	-	-	-	-	-
Repayments of LT Debt	DKK Millions	Annual Report & Bloomberg		-16,855	-19,447	-24,086	-29,924	-20,181	0	-24,540	-27,999	-29,998	-31,080	-31,297	-30,501	-29,313	-29,970
Cash (Repurchase) of Equity	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Capital Stock	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Decrease in Capital Stock	DKK Millions	Annual Report & Bloomberg		-16,855	-19,447	-24,086	-29,924	-20,181	0	-24,540	-27,999	-29,998	-31,080	-31,297	-30,501	-29,313	-29,970
Other Financing Activities	DKK Millions	Annual Report & Bloomberg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flows provided by (used in) financing activities	DKK Millions	Annual Report & Bloomberg		-32,244	-25,493	-51,797	-63,158	8,735	-68,280	-78,994	-89,864	-105,545	-124,511	-142,543	-153,475	-153,490	-158,666
Effect of exchange rate and other changes	DKK Millions	Annual Report & Bloomberg		-456	591	-238	-119	455	0	0	0	0	0	0	0	0	0
INCREASE IN CASH AND CASH EQUIVALENTS	DKK Millions	Annual Report & Bloomberg		-3,185	-1,507	1,937	1,739	1,263	-2,714	-552	-4	2,981	2,518	-946	298	8,101	8,742
Cash and cash equivalents as of start of period	DKK Millions	Annual Report & Bloomberg		15,411	12,226	10,719	12,653	14,392	15,655	12,941	12,389	12,386	12,366	15,366	17,864	16,939	27,237
Cash and cash equivalents as of end of period	DKK Millions	Annual Report & Bloomberg		12,226	10,719	12,653	14,392	15,655	12,941	12,389	12,386	15,366	17,864	16,939	17,237	25,338	34,079
Free Cash Flow	DKK Millions	Annual Report & Bloomberg		46,934	48,317	71,362	81,423	74,715	69,631	84,697	97,122	116,111	134,592	149,095	160,863	168,113	173,571

Appendix 4: Key Financial Ratios (Source: Bloomberg & Author's Analysis)

Description	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
Probability/Efficiency Ratios														
Annual Revenue Growth	-	10.9%	25.7%	31.3%	25.0%	15.0%	5.7%	14.1%	7.1%	3.6%	0.7%	-2.5%	-3.9%	2.2%
Gross Profit Margin	83.5%	83.2%	83.9%	84.6%	84.7%	83.6%	83.7%	83.9%	83.9%	83.9%	83.9%	83.9%	83.8%	83.8%
Operating Margin	42.6%	41.7%	42.3%	44.2%	44.2%	43.4%	43.7%	44.2%	44.5%	44.7%	44.9%	45.0%	45.1%	45.2%
Net Margin	33.2%	33.9%	31.4%	36.0%	34.8%	34.0%	33.8%	34.1%	34.4%	34.6%	34.8%	34.9%	35.0%	35.3%
ROA (Return on Assets)	29.1%	24.6%	23.0%	26.6%	21.7%	21.3%	19.9%	20.3%	20.0%	19.4%	18.7%	17.9%	16.9%	17.0%
DuPont Decomposition														
Leverage (Total Assets/Equity)	228.9%	274.9%	289.0%	295.1%	324.6%	258.3%	243.5%	235.0%	226.1%	216.9%	207.5%	201.2%	196.6%	194.1%
Interest Burden	98.2%	100.7%	92.3%	102.0%	99.1%	100.6%	99.0%	98.9%	99.0%	99.2%	99.3%	99.5%	99.7%	100.0%
Taxes Burden	79.3%	80.8%	80.4%	79.9%	79.4%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
EBIT Margin	42.6%	41.7%	42.3%	44.2%	44.2%	43.4%	43.7%	44.2%	44.5%	44.7%	44.9%	45.0%	45.1%	45.2%
Asset Turnover	87.6%	72.4%	73.3%	73.9%	62.3%	62.4%	58.9%	59.6%	58.1%	56.0%	53.9%	51.2%	48.2%	48.3%
ROE (Return on Equity)	66.5%	67.5%	66.5%	78.5%	70.4%	54.9%	48.4%	47.7%	45.1%	42.1%	38.9%	35.9%	33.2%	33.0%
Activity Ratios														
Receivables Turnover	-	4.1	3.9	4.0	4.2	4.4	4.3	4.5	4.3	4.2	4.2	4.1	4.0	4.1
Days Sales Outstanding	-	88.6	94.1	90.6	85.9	82.4	84.1	81.6	84.5	86.2	87.9	89.9	91.0	88.5
Inventories Turnover	-	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.3
Days of Inventory on Hand	-	294.3	282.3	286.8	297.8	284.4	288.9	278.7	285.6	288.7	291.7	295.8	296.8	287.1
Payables Turnover	-	3.4	2.7	2.1	2.0	2.0	2.1	2.3	2.2	2.2	2.2	2.2	2.3	2.5
Days Payable outstanding	-	107.6	134.4	174.1	185.5	181.0	177.0	161.8	169.7	166.9	164.6	164.3	159.9	147.1
Fixed Asset Turnover	2.5	2.5	2.7	2.6	1.8	1.5	1.3	1.2	1.1	1.1	1.0	0.9	0.9	0.9
Total Asset Turnover	0.9	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Cash Cycle (days)	-	275.4	242.0	203.3	198.2	185.8	196.0	198.5	200.4	208.0	215.0	221.4	227.8	228.5
Liquidity Ratios														
Current Ratio	0.94	0.86	0.89	0.82	0.74	0.71	0.67	0.66	0.65	0.64	0.61	0.57	0.56	0.57
Quick Ratio	0.67	0.66	0.69	0.64	0.55	0.52	0.49	0.48	0.48	0.47	0.44	0.42	0.42	0.43
Cash Ratio	0.18	0.11	0.10	0.08	0.07	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.07	0.08
Solvency Ratios														
Debt to Assets	0.07	0.14	0.11	0.09	0.22	0.16	0.15	0.15	0.14	0.13	0.10	0.07	0.05	0.03
Debt to Equity	0.16	0.38	0.31	0.25	0.72	0.42	0.37	0.35	0.32	0.27	0.21	0.15	0.09	0.05
Interest Coverage (EBIT/Interest Payments)	138.8	202.9	107.9	189.3	78.3	74.2	78.2	74.4	83.2	95.9	100.4	116.7	146.5	221.5
Valuation Ratios														
Auxiliary Data														
Basic Weighted Average Shares	4668.0	4593.0	9061.0	4483.0	4454.0	5701.3	5701.3	5701.3	5701.3	5701.3	5701.3	5701.3	5701.3	5701.3
Share Price (\$11/12X) Source: Refinitiv Eikon	216.5	356.3	471.0	697.1	624.2	-	-	-	-	-	-	-	-	-
Market Cap	1010622.0	1636256.3	4267731.0	3125099.3	2780186.8	-	-	-	-	-	-	-	-	-
Earnings per Share	9.0	10.4	6.1	18.7	22.7	19.9	20.9	24.1	26.0	27.2	27.5	26.9	25.9	26.7
Price/Earnings per Share	24.0	34.3	76.9	37.3	27.5	-	-	-	-	-	-	-	-	-
Price/Book Value per Share	13.6	15.4	9.2	23.8	32.2	36.3	43.2	50.5	57.7	64.5	70.7	74.8	78.0	80.8
Price/Book Value per Share	16.0	23.1	51.1	29.3	19.4	-	-	-	-	-	-	-	-	-
Divident Payout (%)	48%	45%	46%	38%	44%	46%	49%	52%	54%	57%	60%	67%	70%	72%
Cash Flow Ratios														
Cash Flow to Revenue	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Cash to Income	1.0	0.9	1.1	1.1	0.9	0.9	1.0	0.9	0.9	1.0	1.0	1.1	1.1	1.1
Free Operating Cash Flow to Debt	2.5	1.0	1.6	1.9	0.3	0.2	0.3	0.2	0.3	0.5	0.7	0.9	1.5	2.7
Sustainable Growth Rate														
ROE (Return on Equity)	66.5%	67.5%	66.5%	78.5%	70.4%	54.9%	48.4%	47.7%	45.1%	42.1%	38.9%	35.9%	33.2%	33.0%
Divident Payout (%)	47.8%	45.1%	45.6%	38.0%	43.7%	46.4%	49.0%	51.7%	54.4%	57.0%	60.0%	67.0%	70.0%	72.2%
Sustainable Growth Rate	34.8%	37.1%	36.2%	48.7%	39.6%	29.4%	24.7%	23.1%	20.6%	18.1%	15.6%	11.9%	10.0%	9.2%

Appendix 5: Common Size Financial Statements (Source: Bloomberg & Author's Analysis)

Description	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
INCOME STATEMENT														
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Diabetes & Obesity Care	85.1%	86.4%	88.0%	92.6%	93.6%	94.5%	94.8%	95.4%	95.7%	95.7%	95.5%	95.2%	95.2%	95.2%
Rare Disease	14.9%	13.6%	11.6%	7.4%	6.4%	5.5%	5.2%	4.5%	4.2%	4.0%	3.9%	4.0%	4.1%	4.0%
Other Pipeline	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.3%	0.4%	0.5%	0.7%	0.9%
Cost of goods sold	-16.5%	-16.8%	-16.1%	-15.4%	-15.3%	-16.4%	-16.3%	-16.1%	-16.1%	-16.1%	-16.1%	-16.1%	-16.2%	-16.2%
Diabetes & Obesity Care	-14.0%	-13.8%	-13.2%	-13.1%	-13.0%	-14.2%	-14.2%	-14.3%	-14.4%	-14.4%	-14.4%	-14.3%	-14.3%	-14.3%
Rare Disease	-2.5%	-3.1%	-2.8%	-2.3%	-2.3%	-2.2%	-2.1%	-1.8%	-1.7%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%
Other Pipeline	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.2%	-0.2%	-0.3%	-0.3%
Gross profit	83.5%	83.2%	83.9%	84.6%	84.7%	83.6%	83.7%	83.9%	83.9%	83.9%	83.9%	83.9%	83.8%	83.8%
Operating Expenses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sales and distribution costs	-25.9%	-26.3%	-26.1%	-24.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%
Administrative costs	-3.1%	-2.9%	-2.5%	-2.1%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
Research and Development expense	-12.2%	-12.6%	-13.6%	-14.0%	-16.6%	-16.3%	-16.2%	-16.1%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%
Diabetes & Obesity Care	-10.7%	-11.1%	-11.4%	-12.1%	-14.3%	-14.4%	-14.4%	-14.5%	-14.5%	-14.5%	-14.4%	-14.4%	-14.3%	-14.3%
Rare Disease	-1.5%	-1.5%	-2.2%	-1.9%	-2.3%	-1.9%	-1.8%	-1.6%	-1.5%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%
Other Pipeline	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.2%	-0.2%	-0.3%
Other operating income and expenses	0.2%	0.0%	0.1%	0.0%	-0.7%	-0.6%	-0.4%	-0.5%	-0.4%	-0.3%	-0.2%	0.3%	0.6%	0.6%
Diabetes & Obesity Care	0.2%	0.1%	0.5%	0.0%	-0.7%	-0.6%	-0.6%	-0.5%	-0.4%	-0.3%	-0.2%	-0.1%	0.0%	0.0%
Rare Disease	0.2%	0.1%	0.1%	0.1%	0.0%	-0.1%	0.0%	0.1%	0.2%	0.3%	0.3%	0.4%	0.5%	0.6%
Other Pipeline	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Recurring operating income	42.6%	41.7%	42.3%	44.2%	44.2%	43.4%	43.7%	44.2%	44.5%	44.7%	44.9%	45.0%	45.1%	45.2%
Net non-operating income (expense)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA	48.1%	46.8%	46.9%	46.9%	46.8%	45.8%	47.0%	47.9%	48.9%	49.9%	50.9%	52.0%	53.1%	53.7%
Operating income (EBIT)	42.6%	41.7%	42.3%	44.2%	44.2%	43.4%	43.7%	44.2%	44.5%	44.7%	44.9%	45.0%	45.1%	45.2%
Interest income on cash equivalents and short-term investments	0.3%	0.2%	0.1%	0.5%	0.6%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
Interest expense	-0.3%	-0.2%	-0.2%	-0.2%	-0.6%	-0.6%	-0.6%	-0.6%	-0.5%	-0.5%	-0.4%	-0.4%	-0.3%	-0.2%
Other financial income and expense	-0.7%	0.4%	-3.2%	0.7%	-0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net financial cost	-0.8%	0.3%	-3.2%	0.9%	-0.4%	0.3%	-0.4%	-0.5%	-0.4%	-0.3%	-0.3%	-0.2%	-0.2%	0.0%
Income before tax	41.9%	42.0%	39.0%	45.1%	43.8%	43.7%	43.3%	43.7%	44.1%	44.4%	44.6%	44.8%	44.9%	45.2%
Income tax	-8.7%	-8.0%	-7.7%	-9.0%	-9.0%	-9.6%	-9.5%	-9.6%	-9.7%	-9.8%	-9.8%	-9.8%	-9.9%	-10.0%
Net income from fully consolidated companies	33.2%	33.9%	31.4%	36.0%	34.8%	34.0%	33.8%	34.1%	34.4%	34.6%	34.8%	34.9%	35.0%	35.3%
BALANCE SHEET														
Assets														
Intangible assets	14.3%	22.2%	21.1%	19.2%	23.8%	21.4%	19.6%	17.9%	16.8%	16.1%	15.8%	15.8%	15.8%	15.7%
Property, plant and equipment	34.7%	28.5%	27.6%	28.9%	34.9%	41.3%	45.9%	48.8%	51.1%	52.9%	54.5%	55.7%	56.0%	55.3%
Investment in Affiliates/Joint Ventures	0.4%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Other financial assets	0.7%	0.5%	0.4%	0.4%	0.5%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Deferred Tax Assets (Long-Term)	4.0%	4.5%	5.8%	6.5%	5.3%	4.6%	4.1%	3.6%	3.3%	3.1%	2.9%	2.9%	2.8%	2.8%
Other non-current assets	0.5%	0.1%	0.1%	0.5%	0.9%	0.8%	0.7%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%
Non-current assets	54.6%	56.0%	55.2%	55.6%	65.5%	68.5%	70.7%	71.3%	72.1%	73.0%	74.1%	75.1%	75.3%	74.5%
Inventories	12.8%	10.1%	10.1%	10.1%	8.8%	8.3%	7.8%	7.8%	7.8%	7.2%	7.0%	6.8%	6.2%	6.2%
Trade receivables	19.1%	20.9%	21.0%	20.6%	15.4%	14.7%	14.0%	14.2%	13.9%	13.5%	12.8%	12.5%	11.8%	14.8%
Other current assets	2.9%	2.6%	2.5%	2.6%	2.7%	2.4%	2.1%	1.9%	1.7%	1.6%	1.5%	1.5%	1.4%	1.4%
Deferred Income Tax Asset (Short-Term)	0.2%	0.6%	0.4%	0.8%	0.6%	0.5%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Derivatives – assets	1.6%	0.9%	1.1%	0.7%	1.4%	1.2%	1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%
Short-term investments	0.0%	3.5%	4.5%	5.0%	2.3%	2.0%	1.8%	1.6%	1.4%	1.3%	1.3%	1.2%	1.2%	1.2%
Cash	8.9%	5.5%	5.2%	4.6%	2.8%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	3.8%
Current assets	45.4%	44.0%	44.8%	44.4%	34.5%	31.5%	29.3%	28.7%	27.9%	27.0%	25.9%	24.9%	24.7%	25.5%
Total Assets														
100.0%														
Equity														
Share capital	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Retained earnings and other	44.0%	37.0%	33.4%	33.3%	31.0%	38.4%	44.4%	49.2%	53.8%	58.5%	63.4%	67.6%	71.4%	74.6%
Treasury shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-4.1%	-7.8%	-11.1%	-14.2%	-17.3%	-20.4%	-23.4%	-26.3%
Other Equity	-0.6%	-0.9%	1.0%	0.4%	-0.3%	0.2%	0.7%	1.1%	1.4%	1.8%	2.1%	2.5%	2.8%	3.1%
Consolidated equity	43.7%	36.4%	34.6%	33.9%	30.8%	38.7%	41.1%	42.6%	44.2%	46.1%	48.2%	49.7%	50.9%	51.5%
Liabilities														
Long Term Debt	2.0%	6.7%	10.1%	6.5%	19.3%	13.9%	12.6%	11.9%	11.1%	9.5%	7.3%	5.2%	3.3%	1.7%
Pension/Postretirement Liabilities	1.0%	0.7%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Deferred Tax Liabilities (Long-Term)	1.7%	2.7%	2.9%	3.2%	1.2%	1.0%	0.9%	0.8%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%
Other Noncurrent Liabilities	-	2.4%	1.9%	2.2%	1.9%	1.6%	1.5%	1.3%	1.2%	1.1%	1.1%	1.0%	1.0%	1.0%
Non-current liabilities	7.8%	12.5%	15.3%	12.2%	22.5%	16.7%	15.1%	14.2%	13.1%	11.4%	9.1%	7.0%	5.0%	3.4%
Short-Term Borrowings	5.1%	7.0%	0.6%	2.1%	2.8%	2.4%	2.6%	3.2%	3.1%	3.0%	2.6%	2.1%	1.5%	0.6%
Derivatives – liabilities	0.9%	1.1%	1.2%	0.4%	1.6%	1.4%	1.3%	1.1%	1.0%	0.9%	0.9%	0.9%	0.9%	0.8%
Short-Term Provisions	24.0%	26.5%	29.1%	31.9%	25.8%	26.4%	27.1%	27.2%	27.6%	28.3%	29.6%	31.3%	33.1%	34.8%
Trade payables	3.9%	4.6%	6.5%	8.1%	6.2%	5.4%	4.9%	5.0%	4.6%	4.2%	3.9%	3.5%	3.2%	3.3%
Other current liabilities	11.7%	10.1%	9.8%	9.1%	8.2%	7.1%	6.3%	5.6%	5.1%	4.8%	4.5%	4.4%	4.3%	4.3%
Income Taxes Accrued/Payable	2.7%	1.9%	2.9%	2.3%	2.1%	1.8%	1.6%	1.4%	1.3%	1.2%	1.2%	1.1%	1.1%	1.1%
Current liabilities	48.5%	51.2%	50.1%	53.9%	46.7%	44.6%	43.8%	43.3%	42.6%	42.5%	42.7%	43.3%	44.1%	45.1%
Total equity and liabilities														
100.0%														
Control: Assets = Liabilities + Equity														
CASH FLOW STATEMENT														
Net income	33.2%	33.9%	31.4%	36.0%	34.8%	34.0%	33.8%	34.1%	34.4%	34.6%	34.8%	34.9%	35.0%	35.3%
Depreciation and amortization of property, plant and equipment and intangible assets	4.2%	3.8%	3.7%	3.1%	2.9%	2.4%	3.3%	3.7%	4.4%	5.1%	6.0%	7.0%	8.0%	8.5%
Depreciation	3.3%	3.1%	2.8%	2.3%	2.1%	2.0%	2.7%	3.2%	3.8%	4.6%	5.3%	6.2%	7.2%	7.6%
Amortization	2.1%	2.0%	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.7%	0.8%	0.9%
Other Non-Cash Items	7.0%	7.5%	12.5%	13.0%	8.1%	7.1%	6.8%	6.0%	5.7%	5.5%	5.5%	5.6%	5.8%	5.7%
Stock-Based Compensation	0.6%	0.7%	0.5%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Other Non-Cash Adjustments	6.4%	6.8%	11.6%	12.1%	7.3%	6.3%	6.0%	5.2%	4.9%	4.7%	4.7%	4.8%	5.0%	4.9%
Cash flows provided by operating activities, before changes in net working capital	44.4%	45.2%	47.6%	52.2%	45.8%	43.6%	43.8%	43.9%	44.5%	45.3%	46.2%	47.5%	48.9%	49.5%
Change in Inventories	-0.7%	-0.8%	-2.7%	-3.2%	-3.1%	-1.1%	-0.6%	-1.5%	-0.8%	-0.4%	-0.1%	0.3%	0.5%	-0.2%
Change in Accounts Payable	-0.5%	2.2%	3.8%	4.3%	1.1%	0.0%	0.1%	1.2%	0.0%	-0.1%	-0.2%	-0.5%	-0.5%	0.3%
Change in Accounts Receivable	-2.2%	-9.2%	-5.6%	-6.1%	-2.5%	-2.1%	-1.5%	-3.1%	-1.7%	-0.9%	-0.4%	0.5%	0.9%	-0.6%
Change in Other Assets and Liabilities	0.0%	1.6%	1.5%	-0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Change in working capital requirements	-3.4%	-6.1%	-3.0%	-5.3%	-4.1%	-3.1%	-2.0%	-3.4%	-2.5%	-1.4%	-0.7%	0.3%	0.9%	-0.5%
Cash flows provided by operating activities	40.9%	39.1%	44.6%	46.9%	41.7%	40.5%	41.8%	40.5%	42.0%	43.9%	45.6%	47.8%	49.7%	48.9%
Changes in Fixed & Intangible	-17.4%	-5.2%	-8.3%	-16.7%	-17.7%	-20.9%	-19.5%	-18.2%						

Appendix 6: Forecasting Assumptions- Rationale (Source: Author's Analysis)

High level Rationale of Author's Assumptions	
Variable	Rationale
Macroeconomic Assumptions	
Population- World + United States	Projections provided by U.S. Census Bureau – International Data Base.
Real GDP growth (World)	Projections provided by IMF (International Monetary Fund) .
Government Bond Yields	Data was taken from the Department of the Treasury as well as from Bloomberg.
Exchange Rate	DKK/EUR- Assumed constant as, since 1999, the Danish krone has been pegged to the euro in a fixed exchange rate policy. DKK/USD- Fischer Equation was used, taking in account the current bond yields of US and Denmark, maturing in the respective years of analysis. For simplification purposes, and as the scope of sales outside US and Europe are not material (<20%) - the FX impact in these regions was assumed constant.
Industry Assumptions	
General Industry Assumptions	
Probability of Success- Trial Phases	Data taken from Biomedtracker and Pharmapremia: <i>Clinical Development Success Rates and Contributing Factors (2020)</i> . I assumed that the success rate given for " All indication" and also assumed that it would be constant throughout the forecasting years as the historical data covered a long time frame.
Peak Sales	The data was taken from Deloitte pharma study: <i>R&D returns are improving – regulation could stifle innovation</i> . Since the study covered a long time frame, I assumed the 2023 data to be constant over the forecasting time frame.
Sales Ramp Post-Launch (% of Peak Sales)	Data taken from Pharmagellan study: <i>Why Pharma Undervalues Novel R&D</i> . Since the study covered a long time frame, I assumed the data to be constant over the forecasting time frame.
Diabetes	
T2 Diabetes Patients	Historical and Forecasts data taken from the International Diabetes Federation.
Global Diabetes Prescription	Novo Nordisk provides this information in the 2024 Annual report (originally from IQVIA), for the year of 2024. I expect the GLP-1 segment to continue to grow due to a lower penetration (only 6.4% in 2024) and novelty status.
Market share- Novo Nordisk	I expect Novo Nordisk to continue to lose market share to Eli Lilly. I forecast market share loss to start decelerating after CagriSema launch, and I expect amycratin subcut launch to support long-term sales (45% market share in the long-term). Novo Nordisk is also expected to continue to lose share to Eli Lilly and new incoming competitors, including MariTide (Amgen).
Net Price per patient/ month	I assume a meaningful erosion compared to current prices of Novo Nordisk's average price in US. The price assumptions assume that generics players will progressively enter global markets with semaglutide generics from 2026, but will have limited market share due to capacity constraint. The average price per region (US and Ex-US), in 2024, is obtained by dividing the respective region's sales by the patients treated with Novo Nordisk drugs (obtained by multiplying the T2 Diabetes patients by GLP-1 market penetration by Novo Nordisk market share).
Obesity	
Obesity Patients	Historical data is provided by Obesity Atlas 2024.
GLP-1 Obesity Treatment Penetration	Data for the year of 2024 is estimated through a combination of both key opinion leaders (KOL) and Kaiser Family Foundation data. It is expected that GLP-1 segment's market share to significantly grow, both US and Ex-US, due to current low penetration and novelty status. Drug penetration target for the year of 2035 is 15% US and 5% in Ex-US. I believe that the label expansion of obesity GLP-1 drugs to additional co-morbidities will improve access and penetration in obesity: Therapeutic categories where obesity GLP-1 drugs will be approved (CV risk reduction, heart failure, MASH, sleep apnea, osteoarthritis, etc.) will mostly be the driver of access and penetration within the obesity market (and therefore contributing to the "halo effect" of obesity treatment), rather than opening new markets.
Market share	I expect Novo Nordisk to continue to lose market share to Eli Lilly. Other competitors (other than Eli Lilly) will enter the market, such as Amgen, Zealand & partners, Viking, Roche and AstraZeneca.
Net Price per patient/ month	I assume a meaningful erosion compared to current prices of Novo Nordisk's average price in US. The price assumptions assume that generics players will progressively enter global markets with semaglutide generics from 2026, but will have limited market share due to capacity constraint. The average price per region (US and Ex-US), in 2024, is obtained by dividing the region's sales by the patients treated with Novo Nordisk drugs (obtained by multiplying the region's diabetes population by GLP-1 obesity treatment penetration by Novo Nordisk market share).
Rare Diseases	
Patients	Rare diseases' population, in the world, for Haemophilia A and B were taken from Novo Nordisk's annual report as well as World Federation of Hemophilia . The number of people, in the world, with Human Growth Disorder in 2024 was taken from Cleveland Clinic. Forecasted data was computed, both for Haemophilia and Human Growth Disorder, assuming that the prevalence of the diseases in world population would be constant.
Market share- Novo Nordisk	The current NN's market share in human growth disorder was taken from the 2024 Annual Report. The current NN's market share of in rare blood disorders was estimated based on Fortune Business Insights. Both subsegments' market shares were assumed to be constant throughout the forecasted years.
Net Price per patient/ month	I assume the net price/month in both subsegments will be constant throughout the forecasted years. The average price per patient, in 2024, is obtained by dividing the region's sales by the patients treated with Novo Nordisk drugs (obtained by multiplying the region's diabetes population by GLP-1 obesity treatment penetration by Novo Nordisk market share).
Pipeline- Cardiovascular & Emerging Therapy Areas	
Patients	Population, in the world, for each therapy area: AD/PD, ASCVD, heart failure, CKD, MASH were taken from Novo Nordisk's annual report. The number of people, in the world, with cancer was taken from world health organization- Global Cancer Observatory. Forecasted data was computed, for all diseases, assuming that the prevalence of the disease in world population would be constant.

High level Rationale of Author's Assumptions	
Variable	Rationale
Macroeconomic Assumptions	
Industry Assumptions	
Financial Assumptions- Novo Nordisk	
Income Statement	
Total Revenue	Approach follow for modelling revenue: Hybrid approach. I computed the potential <u>Diabetes/ Obesity</u> markets through population growth projections and obesity/ diabetes prevalences. Overall drug penetration in the market (as a % of total patients) was estimated as well as NN's market share. Pricing per patient was computed having a starting point the in-house price per drug per region using the information available in Novo Nordisk's 2024 Annual Report. Total segments' sales were computed multiplying population with the disease by the drug penetration by Novo Nordisk market share by the annualized price per drug. For the <u>Rare Diseases segment</u> , a similar approach was used with the only difference that the overall drug penetration in the market was not used, as in these type of diseases there is only one type of drug in which we can consider as a segment of the treatment. Lastly, for the segment created regarding NN's <u>Pipeline</u> (excluding pipeline that is already considered in the Diabetes and Obesity segments as well as Rare Diseases segment), a probability-adjusted NPV was used. For each trial phase a probability of success (POS) was assigned and was assumed a sales peak. Moreover, a sales ramp post-Launch (in % of Peak Sales) was also assumed. In the end, the 3 segments' sales (Diabetes & Obesity Care + Rare Diseases + Pipeline) were aggregated to reach the total company level sales.
COGS	Gross profit was computed by forecasting each segment's gross profit margin (GPM). GPM of Diabetes & Obesity is expected to continue to be very stable in the upcoming years as it was in the last ones (varying between 84%-86%) as these high margin are normal in industries such as the Pharmaceutical one. Margin flattens or slightly declines as price negotiations, especially in the U.S. (Medicare negotiations post-IRA), introduce pricing pressure. However, new launches may preserve margin mix. Furthermore, the current investments in in-house API manufacturing will help further increases cost efficiency and be one more driver to maintain high margins.
Interest Expense	Although we are at a pivotal time point regarding interest rates, in order to be conservative it was used a combination of current effective interest expense with the current yield to maturity of a recently 10Y bond issued (Bond Yield to Maturity method's value). This combination takes in account the current debt roll-over (circa 75% in the next 5 years).
Income Tax	2025 Guidance for effective tax rate is between 21%-23%. Despite Novo Nordisk's effective tax rate being below Denmark's corporate tax rate of 22% mainly due to low-tax jurisdictions and R&D tax incentives, the 22% is used in the forecast to assure a margin of safety regarding the Danish corporate tax policy changes. Furthermore, from 1 January 2024 Novo Nordisk is subject to Global Minimum Tax (OECD BEPS Pillar 2 rules).
Statement of Financial Position	
Total Debt	Notwithstanding the significant increase in capex over the next two to three years, it is forecasted Novo Nordisk to maintain strong free cash flow generation and gradually reduce debt leverage. The only sizable (debt-funded) acquisition the company has completed throughout its history is the recent three Catalent sites acquisition for about USD 11.7 billion from Novo Holdings completed in 2024, which significantly increased the company's debt level (still at a healthy level). Given the company's organic growth prospects and historically conservative financial policy it is believed that a scenario of another debt-funded acquisition is not likely in the future. In this context, the current Debt/EBITDA ratio is converged to a level more aligned with the past (0.1), as a deleverage is expected.
Depreciation	Assume that depreciation is going to converge to the average depreciation rate observed over the period 2020-2024.
Amortization	Assumed that amortization rate is going to converge to the average amortization rate observed over the period 2020-2024.
Cash Flow Statement	
Net Working Capital	To compute Net Working Capital a hybrid approach was used, based on the cash conversion cycle method. It is assumed that the company will operate, in the forecasted years, at the average efficiency levels of the last 4 years concerning DSO, DIH and DPO- there is no information to believe otherwise.
CAPEX	For the years 2025, 2026, 2027 management guidance was used- It is expected a significant increase in capex over the next two to three years, being 2025 capex guidance around DKK 65 billions. It was assumed the historical average capex in % of sales for the rest of the years.
Dividends	Novo Nordisk's guiding principle is that any excess capital after the funding of organic growth opportunities and potential acquisitions should be returned to investors. The company's dividend policy applies a pharmaceutical industry benchmark to ensure a competitive payout ratio for dividend payments, which are complemented by share repurchase programmes. Payout ratio has remained historically around 44% of net income, reflecting a balance between rewarding shareholders and retaining capital for strategic investments, including R&D and capacity expansion. In this forecast, the dividend payout ratio is modeled to increase gradually from the current 44% to 70% by 2033, which aligns with the company's maturing growth profile and expected reduction in capital intensity beyond the near-term investment cycle.
Issuance (Retirement) of Stock	Novo Nordisk's dividend pay-outs are complemented by share repurchase programmes and does not have a specific share repurchase policy. Historically the ratio of retirement of stock/Sales has been quite stable, at values around 14% except in FY 2024. Therefore, the ratio of 2024 was used for the forecasted years, considering the risk/reward profile of the stock price in comparison to previous years as the stock price appreciated significantly in 2024.
Market Data	
Cost of Capital	
Discount Factor Model	Capital Asset Pricing Model (CAPM).
Cost of Equity (Re)	Cost of Equity was determined using CAPM.
Beta (βe)	Betas by sector approach, using sector unlevered beta from Damodaran.
Risk-free rate (RFR)	Based on 10 year Danish Bond Yield to maturity.
Market Risk Premium (MRP)	Based on the "Survey: Market Risk Premium and Risk Free Rate used for 54 countries in 2025", performed by Pablo Fernandez, Diego García and Lucia F. Acin.
Cost of Debt (Rd)	Based on Bond Yield to Maturity methods as it provides the most realistic market cost of debt for the forecasted time frame- bond issuance with the furthest maturity. This result was compared with the Default Risk Model and Interest Expense/Total Debt values.
Terminal Period	
Long-run sustainable growth rate (g)	Reinvestment rate*ROIC -> Firm approach
Free Cash Flow determination methodology	Stable growth model

Appendix 7: Financial Assumptions (Source: Bloomberg & Author's Analysis)

Description	Units	Observation	2020	2021	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Target
Auxiliary data																	
Macroeconomic Assumptions																	
Industry Assumptions																	
Financial Assumptions- Novo Nordisk																	
Income Statement																	
Revenue																	
Total revenue																	
Total revenue- base case		2025- According to the Guidance	126,946	140800	176954	232261	290,403	334,002	353,135	402,904	431,671	447,236	450,363	438,913	421,817	431,270	-
Growth	%		10.9%	10.9%	25.7%	31.3%	25.0%	15.0%	5.7%	14.1%	7.1%	3.6%	0.7%	-2.9%	-3.9%	2.2%	-
Diabetes & Obesity Care	DKK Millions		108,020	121597	156412	215098	271,764	315,626	334,929	384,553	413,036	428,152	430,943	419,136	401,568	410,438	-
Rare Disease	DKK Millions		18,926	19203	20542	17163	18,639	18,376	18,206	18,124	17,995	17,888	17,677	17,449	17,266	17,110	-
Pipeline- Cardiovascular & Emerging Therapy Areas	DKK Millions		0	0	0	0	0	0	0	227	640	1,197	1,743	2,328	2,984	3,722	-
Control																	-
Current Revenue Scenario (Check Scenario sheet)																	-
Control: Current Scenario = Base Case																	-
Other Operating Assumptions																	
Gross margin			83.5%	83.2%	83.9%	84.6%	84.7%	83.6%	83.7%	83.9%	83.9%	83.9%	83.9%	83.9%	83.8%	83.8%	
Cost of Revenue	DKK Millions		20,932	23,658	28,448	36,765	44,522	54,694	57,522	65,023	69,409	71,856	72,409	70,781	68,335	69,899	
Diabetes & Obesity Care																	
Gross margin	%		83.6%	84.1%	85.0%	85.8%	86.1%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%
Cost of Revenue	DKK Millions		17,715	19,363	23,405	30,483	37,760	47,344	50,239	57,683	61,955	64,223	64,641	62,870	60,235	61,566	
Rare Disease																	
Gross margin	%		83.0%	77.6%	75.5%	69.2%	63.7%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Cost of Revenue	DKK Millions		3,217	4,295	5,043	5,262	6,762	7,350	7,283	7,250	7,198	7,055	7,071	6,979	6,906	6,844	
Pipeline- Cardiovascular & Emerging Therapy Areas																	
Gross margin	%									60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Cost of Revenue	DKK Millions									91	256	479	697	931	1,193	1,489	
Sales and distribution costs	%		-25.9%	-26.3%	-26.1%	-24.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%	-21.4%
Administrative costs	%		-3.1%	-2.9%	-2.9%	-2.1%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
R&D	DKK Millions		15,462	17,772	24,047	32,443	48,062	54,867	57,344	64,821	69,116	71,431	71,837	70,051	67,447	68,857	
% Sales	%		12.2%	12.6%	13.6%	14.0%	16.6%	16.3%	16.2%	16.1%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	
Control																	
Diabetes & Obesity Care																	
R&D	DKK Millions		13,535	15,600	20,157	28,073	41,490	48,093	50,935	58,367	62,568	64,731	65,025	63,119	60,354	61,566	
% Sales	%		12.5%	12.8%	12.9%	13.1%	15.3%	15.2%	15.2%	15.2%	15.1%	15.1%	15.1%	15.1%	15.0%	15.0%	15.0%
Rare Disease																	
R&D	DKK Millions		1,927	2,172	3,890	4,370	6,572	6,474	6,409	6,375	6,324	6,281	6,202	6,117	6,048	5,989	
% Sales	%		10.2%	11.3%	18.9%	25.9%	35.3%	35.2%	35.2%	35.2%	35.1%	35.1%	35.1%	35.1%	35.0%	35.0%	35.0%
Pipeline- Cardiovascular & Emerging Therapy Areas																	
% Sales	DKK Millions									79	224	419	610	815	1,044	1,303	
% Sales	%									35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Other Operating Income	DKK Millions		460	332	1,034	119	-2,103	-2,352	-1,916	-1,531	-926	-214	535	1,251	1,900	2,657	
% Sales	%		0.4%	0.2%	0.6%	0.1%	-0.7%	-0.7%	-0.5%	-0.4%	-0.2%	0.0%	0.1%	0.3%	0.5%	0.6%	
Control																	
Diabetes & Obesity Care																	
Other Operating Income	DKK Millions		264	199	892	-7	-2,074	-2,126	-1,956	-1,902	-1,673	-1,351	-974	-573	-189	174	
% Sales	%		0.24%	0.16%	0.57%	0.00%	-0.76%	-0.67%	-0.58%	-0.49%	-0.41%	-0.32%	-0.23%	-0.14%	-0.05%	0.04%	0.04%
Rare Disease																	
Other Operating Income	DKK Millions		196	133	142	126	-29	-226	41	370	744	1,130	1,499	1,810	2,071	2,461	
% Sales	%		1.04%	0.69%	0.69%	0.73%	-0.16%	-0.07%	0.01%	0.10%	0.16%	0.26%	0.35%	0.43%	0.52%	0.60%	0.60%
Pipeline- Cardiovascular & Emerging Therapy Areas																	
Other Operating Income	DKK Millions									1	4	7	10	14	18	22	
% Sales	%									0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%
Depreciation	%			7.9%	7.4%	6.0%	3.7%	4.0%	4.4%	4.7%	5.0%	5.4%	5.7%	6.0%	6.3%	6.7%	6.7%
Amortization	%		13.2%	6.6%	1.7%	1.6%	1.3%	1.4%	1.6%	1.8%	1.9%	2.1%	2.3%	2.4%	2.6%	2.8%	2.8%
Operating Profit	%		54,126	58,644	74,809	102,574	128,339	144,896	154,423	178,050	192,067	199,970	202,162	197,499	190,069	195,112	
Growth	%	Capex mentioned in the guidance Interest received on the risk-free rate		8.39%	27.56%	37.11%	25.12%	12.90%	6.57%	15.30%	7.87%	11.97%	1.10%	-2.31%	-3.76%	2.65%	
Interest Income	%						7.0%	1.7%	1.8%	2.0%	2.1%	2.2%	2.3%	2.3%	2.3%	2.4%	2.5%
Interest Expense	%		3.8%	1.1%	1.5%	2.0%	1.6%	1.9%	2.3%	2.6%	2.3%	2.0%	2.0%	2.0%	2.1%	2.1%	3.63%
Debt roll-over (concerning 2024 debt position)	%							15.0%	32.9%	50.7%	34.7%	18.8%	20.3%	21.8%	23.3%	24.8%	
Other financial income and expense	%	To be in accordance with 2025 Guidance	-943	494	-5,608	1,573	-1,346	2,409	0	0	0	0	0	0	0	0	0.0
Effective Tax Rate	%	Guidance value for 2025	20.7%	19.2%	19.6%	20.1%	20.6%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%
Balance Sheet																	
Cash cycle	Days		#VALUE!	275	242	203	198	202	205	209	212	216	219	223	226	230	
DSO	Days		-	89	94	91	86	86	87	87	88	88	89	89	89	90	89.8
DH	Days		-	294	282	287	298	297	296	295	294	294	293	292	291	290	290.3
DPO	Days		-	108	134	174	186	182	178	174	170	166	162	158	154	150	150.4
Inventories	%		18,536	19,621	24,388	31,811	40,849	44,384	46,675	52,613	56,003	57,655	58,092	56,623	54,510	55,445	
Trade receivables	%		27,734	40,643	50,560	64,770	71,949	78,802	83,962	96,272	107,629	107,629	109,212	106,954	103,288	105,823	
Trade payables	%		5,717	8,870	15,587	25,606	28,846	28,897	29,125	33,794	33,891	33,343	32,354	30,043	27,994	29,107	
D/E	Unit		0.16	0.38	0.31	0.25	0.72	0.42	0.37	0.35	0.32	0.27	0.21	0.15	0.09	0.05	
Debt/ EBITDA	Unit		0.17	0.40	0.32	0.25	0.76	0.57	0.55	0.52	0.50	0.45	0.36	0.28	0.19	0.10	0.10
Net Debt/ EBITDA	Unit		-0.04	0.24	0.16	0.12	0.64	0.49	0.48	0.46	0.43	0.37	0.29	0.20	0.07	-0.05	
Total Debt	DKK Millions		10,356	26,645	25,784	27,006	102,787	87,239	91,248	100,382	105,500	100,328	83,051	62,737	41,987	23,164	
Growth	%			157.29%	-3.23%	4.74%	280.61%	-15.13%	4.59%	10.02%	5.09%	-4.90%	-17.22%	-24.46%	-33.07%	-44.83%	
Type of Debt																	
Eurobonds	DKK Millions						50,528										
% of carrying amount	%						49.2%										
Loans	DKK Millions						39,701										
% of carrying amount	%						38.6%										
Leases	DKK Millions						6,766										
% of carrying amount	%						6.6%										
Commercial papers	DKK Millions						5,343										
% of carrying amount	%						5.2%										
Bank Overdrafts	DKK Millions						449										
% of carrying amount	%						0.4%										
Maturity																	
Within 1 year	DKK Millions						15,436										
% of carrying amount	%						15.0%										
1-3 years	DKK Millions						52,101										
% of carrying amount	%						50.7%										
3-5 years	DKK Millions						19,286										
% of carrying amount	%						18.6%										
More than 5 years	DKK Millions						25,459										
% of carrying amount	%						24.8%										
LT Debt/ Debt	%	Used historical average of % of Total Debt		48.6%	94.3%	76.0%	87.2%	85.0%	82.7%	80.4%	78.2%	75.9%	73.6%	71.4%	69.1%	66.8%	66.8%
ST Debt/Debt	%	Used historical average of % of Total Debt		51.4%	5.7%	24.0%	12.8%	15.0%	17.3%	19.6%	21.8%	24.1%	26.4%	28.6%	30.9%	33.2%	33.2%
Cash Flow Statement																	
Stock-Based Compensation	%		0.6%	0.7%	0.9%	0.9%	0.8%	0.8%	0.8%	0.6%	0.6%	0.6%	0.8%	0.8%	0.8%	0.8%	0.8%
Aquisition of Fixed assets	%	A significant increase in capex over the next two to three years, being 2025 capex around DKK 60 bn	4.6%	4.5%	6.9%	11.1%	16.2%	19.5%	18.1%	16.8%	15.4%	14.1%	12.7%	11.4%	10.0%	8.7%	8.7%
Acquisition of Intangible Assets	%		12.8%	0.7%	1.5%	5.6%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Payout ratio	%		-47.8%	-45.1%	-45.6%	-38.0%	-43.7%	-46.4%	-49.0%	-51.7%	-54.4%	-57.0%	-60.0%	-67.0%	-70.0%	-70.0%	-65.0%
Shares Buybacks	%		-13.3%	-13.8%	-13.6%	-6.9%	-6.9%	0.0%	-6.9%	-6.9%	-6.9%	-6.9%	-6.9%	-6.9%	-6.9%	-6.9%	-6.9%

Appendix 8: Revenue Schedule- Diabetes (Source: Bloomberg & Author's Analysis)

Description		Units	Obs.	POS	Sparkline	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Target	
Diabetes & Obesity Care																			
Total Sales	DKK Millions					166,412	215,098	271,764	315,626	334,929	384,653	413,036	428,152	430,943	419,136	401,568	410,438	-	
% of NN Total Sales						88.4%	92.6%	93.6%	94.5%	94.8%	95.4%	95.7%	95.7%	95.7%	95.5%	95.2%	95.2%	-	
Diabetes						139,548	173,466	206,618	225,036	239,926	249,859	254,526	254,954	250,930	243,601	233,822	221,912	-	
Obesity Care						16664.0	41632.0	65146.0	90590	95003	134695	158509	173198	180014	175535	167746	186526	-	
US	DKK Millions					182,567	219,763	253,604	286,718	272,917	267,157	267,157	262,076	262,076	59.4%	55.4%	58.0%	-	
% Sales	%					57.8%	65.6%	65.9%	65.1%	63.7%	62.0%	62.0%	62.0%	62.0%	59.4%	55.4%	58.0%	-	
Ex-US	DKK Millions					133,069	115,166	130,949	144,318	155,234	168,786	170,315	174,591	174,591	174,591	172,222	172,222	-	
% Sales	%					42.2%	34.4%	34.1%	34.9%	36.3%	38.0%	38.0%	38.0%	38.0%	40.6%	43.5%	42.0%	-	
Diabetes																			
Total Diabetes Sales	DKK Millions					139,548	173,466	206,618	225,036	239,926	249,859	254,526	254,954	250,930	243,601	233,822	221,912	-	
% of NN Total Sales	%					78.9%	74.7%	71.1%	67.4%	67.9%	62.0%	59.0%	57.0%	55.7%	55.5%	55.4%	51.5%	-	
GLP-1	DKK Millions					83,371	123,132	149,125	169,698	184,548	194,379	198,989	199,349	195,344	188,054	178,285	166,372	-	
US	DKK Millions					53,167	77,683	96,695	105,676	110,024	110,512	107,016	100,578	91,156	79,904	67,700	54,952	-	
%	%					64%	63%	65%	62.3%	59.6%	56.9%	53.8%	50.5%	46.7%	42.5%	38.0%	33.0%	-	
Ex-US	DKK Millions					30,204	45,449	52,430	64,021	74,525	83,867	91,973	98,771	104,188	108,150	110,585	114,421	-	
%	%					36%	37%	35%	37.7%	40%	43.1%	46.2%	49.5%	53.3%	57.5%	62.0%	67.0%	-	
Insulin	DKK Millions					62,952	48,022	55,373	55,339	55,378	55,480	55,538	55,605	55,586	55,547	55,537	55,540	-	
US	DKK Millions					13,054	9,818	15,478	15,065	14,737	14,484	14,200	13,937	13,600	13,256	12,952	12,675	-	
%	%					25%	20%	28%	27.2%	26.6%	26.1%	25.6%	25.1%	24.5%	23.9%	23.3%	22.8%	-	
Ex-US	DKK Millions					39,898	38,204	39,895	40,274	40,641	40,995	41,338	41,668	41,986	42,291	42,585	42,866	-	
%	%					75%	80%	72%	72.8%	73.4%	73.9%	74.4%	74.9%	75.5%	76.1%	76.7%	77.2%	-	
Total Diabetes sales per Geography																			
US	DKK Millions					66,881	87,768	112,386	120,741	124,760	124,997	121,215	114,515	104,756	93,160	80,652	67,626	-	
% Sales	%					47.9%	50.6%	54.4%	54%	52%	50%	48%	45%	42%	38%	34%	30%	-	
EX-US	DKK Millions					72,667	85,698	94,232	104,295	115,166	124,862	133,311	140,439	146,173	150,441	153,170	154,286	-	
% Sales	%					52.1%	49.4%	45.6%	46%	48%	52%	52%	55%	58%	62%	66%	70%	-	
Patents Expiration																			
Diabetes Care																			-
GLP-1						0	0	0	0	0	0	0	0	0	0	0	0	-	
Rybelsus	Unit					0	0	0	0	China	0	0	0	0	Europe + Japan	US	0	-	
Ozempic	Unit					0	0	0	0	China	0	0	0	0	Europe + Japan	US	0	-	
Victoza	Unit					0	0	Expired	0	0	0	0	0	0	0	0	0	-	
Long-Acting Insulin						0	0	0	0	0	0	0	0	0	0	0	0	-	
Tresiba	Unit					0	0	Expired: China	0	0	Japan	Europe	US	0	0	0	0	-	
Levemir	Unit					0	0	Expired	0	0	0	0	0	0	0	0	0	-	
Premix Insulin						0	0	0	0	0	0	0	0	0	0	0	0	-	
NovoMix	Unit					0	0	0	0	0	0	0	0	0	0	0	0	-	
Fast - Acting Insulin						0	0	0	0	0	0	0	0	0	0	0	0	-	
Fiasp	Unit					0	0	0	0	0	0	0	0	US + China + Japan + Europe	0	0	0	-	
NovoRapid	Unit					0	0	0	0	0	0	0	0	0	0	0	0	-	
Pipeline Overview- Diabetes																			
IcoSema	Trial Phase	Source POS, Biomedtracker and Pharmapremia	90.6%			Submission and/or sCRIMINON and/or			First Sales Year	First Sales Year								-	
Icodec	Trial Phase	Source POS, Biomedtracker and Pharmapremia	90.6%															-	
Cagri/Sema	Trial Phase	Source POS, Biomedtracker and Pharmapremia	52.4%			P3				First Sales Year								-	
OW GIP/ GLP-1	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%			P2							First Sales Year					-	
GELA	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%			P2							First Sales Year					-	
Amycretin	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%			P2							First Sales Year					-	
Pumpsulin	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%			P1											First Sales Year	-	
DNA immunotherapy	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%			P1											First Sales Year	-	
OW Oral Semaglutide	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%			P1											First Sales Year	-	
GSI	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%			P1											First Sales Year	-	
T2 Diabetes Patients																			
People with Diabetes Globally	Million	Source: International Diabetes Federation				588.7		588.9	609.0	619.1	629.3	639.4	649.6	659.7	669.9	680.0		852.5	
% of world population	%	Source: International Diabetes Federation				7.3%		7.4%	7.4%	7.5%	7.5%	7.6%	7.7%	7.7%	7.8%	7.8%		-	
People with Diabetes in USA	Million	Source: International Diabetes Federation				38.5		38.7	38.8	39.0	39.2	39.4	39.5	39.7	39.9	40.1		43.0	
% of people with Diabetes Globally	%					6.5%		6.5%	6.4%	6.3%	6.2%	6.2%	6.1%	6.0%	6.0%	5.9%		-	
Global Diabetes Prescriptions																			
GLP-1 Penetration of Global diabetes prescriptions	%	IQVIA				6.4%		8.1%	9.8%	11.5%	13.2%	14.9%	16.5%	18.2%	19.9%	21.6%		22.0%	
Insulin Penetration of Global diabetes prescriptions	%	IQVIA				22.0%		22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%		25.0%	
Traditional OAD Penetration of Global diabetes prescriptions	%	IQVIA				44.6%		42.4%	40.1%	37.9%	35.7%	33.4%	31.2%	28.9%	26.7%	24.5%		20.0%	
DPP-4i Penetration of Global diabetes prescriptions	%	IQVIA				9.0%		8.5%	7.9%	7.4%	6.8%	6.3%	5.7%	5.2%	4.6%	4.1%		3.0%	
GLT-2i Penetration of Global diabetes prescriptions	%	IQVIA				18.0%		18.6%	19.3%	19.9%	20.5%	21.2%	21.8%	22.5%	23.1%	23.7%		25.0%	
Market share- Novo Nordisk																			
Total Diabetes	%					31.8%	33.7%	33.7%											
GLP-1	%	Source: NN				54.9%	54.8%	55.1%	52.3%	49.5%	46.7%	43.9%	41.2%	38.4%	35.6%	32.8%	30.0%	30.0%	
Rybelsus	%	Source: NN																-	
Ozempic	%																	-	
Victoza	%																	-	
Pipeline	%																	-	
IcoSema	%	90.6%																-	
Icodec	%	90.6%																-	
Cagri/Sema	%	52.4%																-	
OW GIP/ GLP-1	%	15.1%																-	
GELA	%	15.1%																-	
Amycretin SC	%	15.1%																-	
Amycretin Oral	%	15.1%																-	
Pumpsulin	%	7.9%																-	
DNA Immunotherapy	%	7.9%																-	
OW Oral Semaglutide	%	7.9%																-	
GSI	%	7.9%																-	
Insulin	%	Source: NN				44.2%	43.6%	43.3%	42.9%	42.6%	42.2%	41.8%	41.5%	41.1%	40.7%	40.4%	40.0%	40.0%	
Annual dose per patient																			
Insulin																		-	
Type 1 Diabetes																		-	
Average Monthly Dose	Vials	PubMed					1.8		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	
Average Annually Dose	Vials	PubMed					21.6		21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	
Type 2 Diabetes																		-	
Average Monthly Dose	Vials	PubMed					1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Average Annually Dose	Vials	PubMed					18.0		18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
Net Price per patient/ month																			
GLP-1 price/month																			-
US	USD																		
US	DKK	NN					860.6		798.3	736.0	673.7	611.4	549.2	486.9	424.6	362.3	300.0	300	
Ex-US	EUR						5,935.1		5,380.2	4,872.3	4,402.1	3,933.6	3,482.7	3,026.6	2,584.4	2,164.9	1,762.7	-	
Ex-US	EUR						30.2		30.2	30.2	30.1	30.1	30.1	30.1	30.0	30.0	30.0	30.0	
Ex-US	DKK	NN					225.2		225.0	224.9	224.7	224.5	224.4	224.2	224.0	223.9	223.7	225.0	
Insulin price/month																			
US	USD																		
US	DKK	NN					51.0		51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	
Ex-US	EUR						381.7		343.7	337.6	333.2	328.1	323.4	317.0	310.4	304.7	298.6	361.7	
Ex-US	EUR						9		8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	
Ex-US	DKK	NN					63.4		63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	

Appendix 9: Revenue Schedule- Obesity (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	POS	Sparkline	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Target
Diabetes & Obesity Care																	
Total Sales	DKK Millions				156,412	215,098	271,764	315,626	334,929	384,553	413,036	428,162	430,943	419,136	401,568	410,438	-
% of NN Total Sales					88.4%	92.6%	93.6%	94.5%	94.8%	95.4%	95.7%	95.7%	95.7%	95.5%	95.2%	95.2%	-
Diabetes					139,548	173,468	206,618	225,036	239,926	249,859	254,526	254,954	250,930	243,601	233,822	221,912	-
Obesity Care					16864.0	41632.0	65146.0	90590	95003	134695	158509	173198	180014	175535	167746	185526	-
US	DKK Millions							182,567	219,763	253,604	268,718	272,917	267,157	248,821	226,977	238,216	-
% Sales	%							57.8%	65.6%	65.9%	65.1%	63.7%	62.0%	59.4%	56.5%	58.0%	-
EX-US	DKK Millions							133,069	115,166	130,949	144,318	155,234	163,786	170,315	174,591	172,222	-
% Sales	%							42.2%	34.4%	34.1%	34.9%	36.3%	38.0%	40.6%	43.5%	42.0%	-
Obesity																	
Total Obesity Sales	DKK Millions	Source: NN			16,864	41,632	65,146	90,590	95,003	134,695	158,509	173,198	180,014	175,535	167,746	185,526	-
% of NN Total Sales	%	Source: NN			9.5%	17.9%	22.4%	27.1%	26.9%	33.4%	36.7%	38.7%	40.0%	40.0%	39.8%	43.7%	-
Wegovy	DKK Millions	Source: NN			6,188	31,343	59,206										-
US	DKK Millions	Source: NN			6,134	29,430	45,770										-
%	%				99%	94%	79%										-
Ex-US	DKK Millions	Source: NN			54	1,913	12,436										-
%	%				1%	6%	21%										-
Saxenda	DKK Millions	Source: NN			10,676	10,299	6,940										-
US	DKK Millions	Source: NN			4,368	3,336	777										-
%	%				41%	32%	11%										-
Ex-US	DKK Millions	Source: NN			6,308	6,963	6,163										-
%	%				59%	68%	89%										-
Total Obesity sales per Geography																	-
US	DKK Millions	Source: NN			10,502	32,736	46,547	61,816	95,003	128,607	147,502	158,403	162,401	155,661	146,325	170,590	-
% Sales	%				62.3%	78.6%	71.5%	68%	100%	95%	93%	91%	90%	89%	87%	90%	-
EX-US	DKK Millions	Source: NN			6,362	8,896	18,599	28,774	0	6,087	11,007	14,795	17,612	19,874	21,421	17,936	-
% Sales	%				37.7%	21.4%	28.5%	32%	0%	5%	7%	9%	10%	11%	13%	10%	-
Patents Expiration																	
Wegovy (Semaglutide 2.4 mg)		Source: NN			0	0	0	0	China	0	0	0	0	Europe + Japan	US	0	-
Saxenda		Source: NN			0	0	Expired	0	0	0	0	0	0	0	0	0	-
Pipeline Overview- Obesity																	
Oral Semaglutide	Trial Phase	Source POS: Biomedtracker and Pharmapremia	52.4%				P3			First Sales Year							-
Semaglutide	Trial Phase	Source POS: Biomedtracker and Pharmapremia	52.4%				P3			First Sales Year							-
CagriSema	Trial Phase	Source POS: Biomedtracker and Pharmapremia	52.4%				P3			First Sales Year							-
GELA	Trial Phase	Source POS: Biomedtracker and Pharmapremia	15.1%				P2						First Sales Year				-
Montunabant	Trial Phase	Source POS: Biomedtracker and Pharmapremia	15.1%				P2						First Sales Year				-
Cagrilintide	Trial Phase	Source POS: Biomedtracker and Pharmapremia	15.1%				P2						First Sales Year				-
Amycretin- Oral and SC	Trial Phase	Source POS: Biomedtracker and Pharmapremia	15.1%				P2						First Sales Year				-
INV-347	Trial Phase	Source POS: Biomedtracker and Pharmapremia	7.9%				P1									First Sales Year	-
OW GIP/ GLP-1	Trial Phase	Source POS: Biomedtracker and Pharmapremia	15.1%				P2						First Sales Year				-
Triple	Trial Phase	Source POS: Biomedtracker and Pharmapremia	7.9%				P1									First Sales Year	-
Amylin 355	Trial Phase	Source POS: Biomedtracker and Pharmapremia	7.9%				P1									First Sales Year	-
Obesity Patients																	
Globally																	-
Adult Population	Million	Obesity Atlas 2024				5,110.9		5,500.0	5,564.1	5,626.1	5,686.0	5,743.9	5,800.0	5,866.1	5,930.2	5,992.4	6,111.1
Adults with overweight (millions)- BMI ≥25 to 30 kg/m2	Million	Obesity Atlas 2024				1,520.0		1,520.0	1,546.0	1,572.0	1,598.0	1,624.0	1,650.0	1,674.0	1,698.0	1,722.0	1,770.0
% Population	%	Obesity Atlas 2024				29.7%		27.6%	27.8%	27.9%	28.1%	28.3%	28.4%	28.5%	28.6%	28.7%	29.0%
Adults with obesity (millions)- BMI ≥30 kg/m2	Million	Obesity Atlas 2024				831.0		1,010.0	1,068.0	1,106.0	1,154.0	1,202.0	1,250.0	1,306.0	1,362.0	1,418.0	1,500.0
% Population	%	Obesity Atlas 2024				16.3%		18.4%	19.0%	19.7%	20.3%	20.9%	21.6%	22.3%	23.0%	23.7%	25.0%
Prevalence of overweight and obesity (high BMI)	%	Obesity Atlas 2024				46.0%		46.0%	46.8%	47.6%	48.4%	49.2%	50.0%	50.8%	51.6%	52.4%	54.0%
United States																	-
Adult Population		The Annie E. Casey Foundation				258.0		260.0	272.3	277.0	281.6	286.1	290.5	284.2	277.9	271.8	-
% of total population	%					76.7%		76.9%	80.2%	81.2%	82.2%	83.0%	84.2%	84.0%	80.0%	77.9%	-
Adults with obesity (millions)- BMI ≥30 kg/m2		Global Obesity Observatory				190.0		190.0	195.0	200.0	205.0	210.0	215.0	212.0	209.0	206.0	230.0
% Population	%					73.6%		73.1%	71.6%	72.2%	72.8%	73.4%	74.0%	74.6%	75.2%	75.8%	-
Prevalence of overweight and obesity (high BMI)	%	Proxy- Region of the Americas (PAHO)				71.0%		71.0%	71.6%	72.2%	72.8%	73.4%	74%	74.6%	75.2%	75.8%	-
By WHO Regions																	
GLP-1 Obesity Treatment Penetration																	
US	%	KFF, KOL				0.8%	1.5%	2.6%	4.1%	6.4%	6.7%	8.0%	9.3%	10.6%	11.9%	15%	-
EX-US	%	NN, KOL				0.5%	0.9%	1.3%	0.4%	0.8%	1.2%	1.6%	2.0%	2.5%	2.9%	5%	-
Peak Sales																	
Average Peak Sales per Successful Drug	USD Millions	Deloitte				389.0		389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0
Average Peak Sales per Successful Drug	DKK Millions					2,682.8		2,621.7	2,575.1	2,541.7	2,502.5	2,467.0	2,418.2	2,367.8	2,324.5	2,285.6	-
Market share																	
Injectable patient share of high efficacy	%				100.0%	100.0%	100.0%	96.7%	93.3%	90.0%	86.7%	83.3%	80.0%	76.7%	73.3%	70.0%	70.0%
Market share within injectables	%																-
Saxenda	%				35%	17.8%	5.8%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Wegovy	%				55%	72.2%	54.2%	42.0%	38.5%	35.0%	31.1%	27.2%	23.2%	19.3%	15.4%	15.0%	15%
Pipeline	%									2.1%	4.3%	6.4%	8.6%	10.7%	12.9%	15.0%	15%
Semaglutide			52.4%							First Sales Year							-
CagriSema (combination of cagrilintide + semaglutide)			52.4%										First Sales Year				-
GELA			15.1%										First Sales Year				-
Cagrilintide			15.1%										First Sales Year				-
Amycretin SC			15.1%										First Sales Year				-
OW GIP/ GLP-1			15.1%										First Sales Year				-
Triple			7.9%										First Sales Year				-
Amylin 355			7.9%										First Sales Year				-
Novo	%	Source: NN			90.0%	90.0%	60.0%	44.9%	38.5%	37.1%	35.4%	33.6%	31.8%	30.0%	28.2%	30.0%	30%
Zepbound	%				5%	10.0%	40.0%	55.1%	61.5%	61.4%	55.0%	50.0%	45.0%	40.0%	35.0%	30.0%	30%
Retatide	%				0%	0.0%	0.0%	0.0%	0.0%	1.4%	2.9%	4.3%	5.7%	7.1%	8.6%	10.0%	10%
LLY 3rd wave	%				0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	10.0%	15.0%	15%
El Lilly	%	Source: NN			5.0%	10.0%	40.0%	55.1%	61.5%	62.9%	57.9%	54.3%	50.7%	52.1%	53.6%	55.0%	-
Martide	%				0.00%	0.0%	0.0%										-
petrelitide	%				0.00%	0.0%	0.0%										-
Other injectables	%				0.00%	0.0%	0.0%										-
Other high-efficacy	%				5.00%	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	12.1%	17.5%	17.8%	18.2%	15.0%	-
Oral patient share of high efficacy	%				0.00%	0.0%	0.0%	3.3%	6.7%	10.0%	13.3%	16.7%	20.0%	23.3%	26.7%	30.0%	30%
Market share within orals	%																-
Oral semaglutide	%		52.4%							First Sales Year							-
Montunabant	%		15.1%										First Sales Year				-
Amycretin oral	%		15.1%										First Sales Year				-
INV-347	%		7.9%										First Sales Year				-
Novo Oral obesity	%				0.00%	0.0%	0.0%	0.0%	60.0%	50.0%	50.0%	48.0%	46.0%	44.0%	42.0%	40.0%	40%
Lilly Oral obesity	%					0.0%	0.0%	0.0%	40.0%	50.0%	50.0%	48.0%	46.0%	44.0%	42.0%	40.0%	40%
Oxtorgipron	%																

Appendix 10: Revenue Schedule- Rare Diseases (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	POS	Sparkline	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Target
Rare Disease																	
Total Haemophilia Sales	DKK Millions	Source: NN			20,542.0	17,163.0	18,639.0	18,375.6	18,206.3	18,123.9	17,995.4	17,887.7	17,677.2	17,448.7	17,265.7	17,110.1	-
% of NN Total Sales	%				11.6%	7.4%	6.4%	5.5%	5.2%	4.5%	4.2%	4.0%	3.9%	4.0%	4.1%	4.0%	-
Total Rare Diseases sales per Geography																	
US	DKK Millions				7,273.0	7,030.0	8,469.0	8,349.3	8,272.4	8,234.9	8,176.6	8,127.6	8,032.0	7,928.2	7,845.0	7,774.3	45.4%
% Sales	%				35.4%	41.0%	45.4%	45.4%	45.4%	45.4%	45.4%	45.4%	45.4%	45.4%	45.4%	45.4%	
EX-US	DKK Millions				13,269.0	10,133.0	10,170.0	10,026.3	9,933.9	9,888.9	9,818.8	9,760.0	9,645.2	9,520.5	9,420.7	9,335.8	54.6%
% Sales	%				64.6%	59.0%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%	54.6%	
Rare Blood Disorders	DKK Millions	Source: NN			11,706.0	11,776.0	12,138.0	11,966.4	11,856.2	11,802.5	11,718.9	11,648.7	11,511.7	11,362.9	11,243.7	11,142.3	-
Human growth Disorder	DKK Millions	Source: NN			8,836.0	5,387.0	6,501.0	6,409.1	6,350.1	6,321.3	6,276.5	6,238.9	6,165.6	6,085.8	6,022.0	5,967.7	-
Rare Endocrine Disorders	DKK Millions	Source: NN			7,138.0	3,836.0	4,993.0										-
% Human growth Disorder	%				80.8%	71.2%	76.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
Other Biopharm	DKK Millions	Source: NN			1,698.0	1,551.0	1,508.0										-
% Human growth Disorder	%				19.2%	28.8%	23.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
Patents Expiration																	
Rare Blood Disorders	Unit	Source: NN			0	0	0	0	0	0	0	0	0	0	0	0	-
NovoEight	Unit	Source: NN			0	0	publicly disclosed	0	0	0	0	0	0	0	0	0	-
NovoSeven	Unit	Source: NN			0	0	Expired	0	0	0	0	0	0	0	0	0	-
Rare Endocrine Disorders	Unit	Source: NN			0	0	0	0	0	0	0	0	0	0	0	0	-
Pipeline Overview- Rare Diseases																	
Mim8- Haemophilia	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	52.4%				P3			First Sales Year							-
Elavopivat- Sickle cell disease	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	52.4%				P3			First Sales Year							-
Elavopivat- Thalassemia	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	15.1%				P2					First Sales Year					-
nDec- Sickle cell disease	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	15.1%				P2					First Sales Year					-
TMPSR2- Hereditary Haemochromatosis	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	7.9%				P1									First Sales Year	-
Inno8- Haemophilia	Trial Phase	Source POS: Biomedtracker and Pharmapremia 2020	7.9%				P1									First Sales Year	-
Patients																	
People with Haemophilia A Globally	Unit	Source: NN, WFH				208,957.0		210,804.7	212,636.8	214,459.1	216,270.4	218,069.7	219,855.4	221,630.9	223,396.9	225,147.2	-
% of world population	%					0.003%		0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%
People with Haemophilia B Globally	Unit	Source: NN, WFH				42,203.0		42,576.2	42,946.2	43,314.3	43,680.1	44,043.5	44,404.1	44,762.7	45,119.4	45,472.9	-
% of world population	%					0.001%		0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
People with Human growth Disorder Globally	Unit					805,608.4		812,731.8	819,795.2	826,820.9	833,804.2	840,741.4	847,625.7	854,471.0	861,279.6	868,027.8	-
% of world population	%	Cleveland Clinic				0.010%		0.010%	0.010%	0.010%	0.010%	0.010%	0.010%	0.010%	0.010%	0.010%	0.010%
Market share- Novo Nordisk																	
Rare Blood Disorders	%	Source: Fortune Business Insights				20.0%		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
NovoEight	%																-
NovoSeven	%																-
Mim8	%		52.4%							First Sales Year							-
Inno8	%		7.9%													First Sales Year	-
Global Human growth Disorder market	%	Source: NN			37.0%	33.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%
Elavopivat- Sickle cell disease	%		52.4%							First Sales Year							-
Elavopivat- Thalassemia	%		15.1%									First Sales Year					-
nDec- Sickle cell disease	%		15.1%									First Sales Year					-
TMPSR2- Hereditary Haemochromatosis	%		7.9%													First Sales Year	-
Net Price per patient/ month																	
Haemophilia	USD					420,451.5		420,451.5	420,451.5	420,451.5	420,451.5	420,451.5	420,451.5	420,451.5	420,451.5	420,451.5	420,451.5
Haemophilia	DKK					2,899,665.6		2,833,624.7	2,783,328.8	2,747,187.6	2,704,867.0	2,666,491.8	2,613,722.5	2,559,261.8	2,512,409.7	2,470,398.9	-
Global Human growth Disorder market	USD					73,901.3		73,901.3	73,901.3	73,901.3	73,901.3	73,901.3	73,901.3	73,901.3	73,901.3	73,901.3	73,901.3
Global Human growth Disorder market	DKK					509,663.9		498,056.1	489,215.8	482,863.4	475,424.8	468,679.7	459,404.7	449,832.3	441,597.3	434,213.2	-

Appendix 11: Revenue Schedule- Pipeline- Cardiovascular & Emerging Therapy Areas (Source: Bloomberg & Author's Analysis)

Description	Units	Obs.	POS	Sparkline	2022	2023	2024	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	Target
Pipeline- Cardiovascular & Emerging Therapy Areas																	
Total Risk Adjusted Sales	DKK Millions							0.0	0.0	226.9	639.6	1,196.6	1,742.6	2,328.2	2,983.6	3,722.4	-
% of NN Total Sales	%							0.0%	0.0%	0.1%	0.1%	0.3%	0.4%	0.5%	0.7%	0.9%	-
Total Rare Diseases sales per Geography																	-
US	DKK Millions							0.0	0.0	130.8	368.7	689.8	1,004.5	1,342.1	1,719.9	2,145.7	57.6%
% Sales	%							57.6%	57.6%	57.6%	57.6%	57.6%	57.6%	57.6%	57.6%	57.6%	-
EX-US	DKK Millions							0.0	0.0	96.1	270.9	506.8	738.1	986.1	1,263.7	1,576.6	-
% Sales	%							42.4%	42.4%	42.4%	42.4%	42.4%	42.4%	42.4%	42.4%	42.4%	-
Risk adjusted sales per Therapy Areas																	-
Neuroscience	DKK Millions							0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	357.3	-
Alzheimer's- Semaglutide	DKK Millions	52.4%						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.0	-
SC4PD- Parkinson's	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Cardiovascular	DKK Millions							0.0	0.0	68.1	191.9	359.0	514.0	673.9	849.1	1,071.5	-
Ziltivekimab	DKK Millions	52.4%						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.0	-
Coramitug	DKK Millions	15.1%						0.0	0.0	0.0	0.0	43.6	123.0	230.1	301.5	301.5	-
CM4HF	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Anti-ANGPTL3	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
DCR-XDH	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Heart Failure	DKK Millions							0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
CDR132L	DKK Millions	15.1%						0.0	0.0	0.0	0.0	0.0	43.6	123.0	230.1	301.5	-
CNP HF	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
CKD	DKK Millions							0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Ventus NLRP3i	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
MASH	DKK Millions							0.0	0.0	45.4	127.9	239.3	400.9	613.2	872.9	1,166.7	-
Semaglutide	DKK Millions	52.4%						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.0	-
CagriSema	DKK Millions	15.1%						0.0	0.0	0.0	0.0	0.0	43.6	123.0	230.1	301.5	-
Zaffermin	DKK Millions	15.1%						0.0	0.0	0.0	0.0	0.0	43.6	123.0	230.1	301.5	-
LXRa	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
MAC1	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Oncology	DKK Millions							0.0	0.0	45.4	127.9	239.3	400.9	613.2	872.9	1,166.7	-
PD-L1	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
STAT3	DKK Millions	7.9%						0.0	0.0	22.7	64.0	119.7	156.8	183.6	206.3	206.3	-
Pipeline Overview- Cardiovascular & Emerging Therapy Areas																	
Neuroscience																	-
Alzheimer's- Semaglutide	Trial Phase	Source POS, Biomedtracker and Pharmapremia	52.4%				P3										First Sales' Year
SC4PD- Parkinson's	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
Cardiovascular																	-
Ziltivekimab	Trial Phase	Source POS, Biomedtracker and Pharmapremia	52.4%				P3										First Sales' Year
Coramitug	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%				P2						First Sales' Year				-
CM4HF	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
Anti-ANGPTL3	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
DCR-XDH	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
Heart Failure																	-
CDR132L	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%				P2						First Sales' Year				-
CNP HF	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
CKD																	-
Ventus NLRP3i	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
MASH																	-
Semaglutide	Trial Phase	Source POS, Biomedtracker and Pharmapremia	52.4%				P3										First Sales' Year
CagriSema	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%				P2						First Sales' Year				-
Zaffermin	Trial Phase	Source POS, Biomedtracker and Pharmapremia	15.1%				P2						First Sales' Year				-
LXRa	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
MAC1	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
Oncology																	-
PD-L1	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
STAT3	Trial Phase	Source POS, Biomedtracker and Pharmapremia	7.9%				P1			First Sales' Year							-
Patients																	
People with AD/ID																	-
Globally	Millions	Source: NN					70.0	70.6	71.2	71.8	72.4	73.1	73.7	74.2	74.8	75.4	-
% of population	%						0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%
People with ASCVD																	-
Globally	Millions	Source: NN					21.0	21.2	21.4	21.6	21.7	21.9	22.1	22.3	22.5	22.6	-
% of population	%						0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%
People with Heart Failure																	-
Globally	Millions						169.1	169.1	170.5	172.0	173.5	174.9	176.3	177.8	179.2	180.6	-
% of population	%						2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%
People affected by CKD																	-
US	Millions	Source: NN					7.0										-
% of US population	%						2.08%										-
People affected by MASH																	-
Globally	Millions	Source: NN					800.0	807.1	814.1	821.1	828.0	834.9	841.7	848.5	855.3	862.0	-
% of population	%						9.93%	9.93%	9.93%	9.93%	9.93%	9.93%	9.93%	9.93%	9.93%	9.93%	9.93%
People affected by Cancer																	-
Globally	Millions	Source: NN					250.0	252.2	254.4	256.6	258.7	260.9	263.0	265.2	267.3	269.4	-
% of population	%						3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
People affected by Cancer																	-
Globally	Millions	WHO					50.0	50.4	50.9	51.3	51.7	52.2	52.6	53.0	53.5	53.9	-
% of population	%						0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%
Peak Sales																	
Average Peak Sales per Successful Drug	USD Millions	Deloitte					389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0	389.0
Average Peak Sales per Successful Drug	DKK Millions						2,682.8	2,621.7	2,575.1	2,541.7	2,502.5	2,467.0	2,418.2	2,367.8	2,324.5	2,285.6	2,682.8
Sales Ramp Post-Launch (% of Peak Sales)																	
Neuroscience																	-
Alzheimer's- Semaglutide	%	Source: Pharmagellan	52.4%														11.0%
SC4PD- Parkinson's	%	Source: Pharmagellan	7.9%							11.0%	31.0%	58.0%	76.0%	89.0%	100.0%	100.0%	-
Cardiovascular																	-
Ziltivekimab	%	Source: Pharmagellan	52.4%														11.0%
Coramitug	%	Source: Pharmagellan	15.1%										11.0%	31.0%	58.0%	76.0%	-
CM4HF	%	Source: Pharmagellan	7.9%							11.0%	31.0%	58.0%	76.0%	89.0%	100.0%	100.0%	-
Anti-ANGPTL3	%	Source: Pharmagellan	7.9%							11.0%	31.0%	58.0%	76.0%	89.0%	100.0%	100.0%	-
DCR-XDH	%	Source: Pharmagellan	7.9%							11.0%	31.0%	58.0%	76.0%	89.0%	100.0%	100.0%	-
Heart Failure																	-
CDR132L	%	Source: Pharmagellan	15.1%										11.0%	31.0%	58.0%	76.0%	-
CNP HF	%	Source: Pharmagellan	7.9%														-
CKD																	-
Ventus NLRP3i	%	Source: Pharmagellan	7.9%							11.0%	31.0%	58.0%	76.0%	89.0%	100.0%	100.0%	-
MASH																	-
Semaglutide	%	Source: Pharmagellan	52.4%														11.0%
CagriSema	%	Source: Pharmagellan	15.1%										11.0%	31.0%	58.0%	76.0%	-</

Appendix 12: Peers Comparison- 2024 (Source: Bloomberg & Author's Analysis)

Description- DKK	Novo Nordisk A/S (XNYS:NVO)	ELI LILLY AND COMPANY (XNYS:LLY)	PFIZER INC. (XNYS:PFE)	ASTRAZENECA PLC (XNAS:AZN)	Sanofi SA (XPAR:SAN)	Peers Average
Company Information						
Market Cap (DKK)	2,623,405,274,115	5,965,158,569,792	1,113,873,253,817	1,621,172,796,669	954,337,313,433	2,455,589,441,565
Net Revenue (DKK)	290,403,000,000	310,649,561,442	438,821,377,179	372,929,547,648	330,320,603,446	348,624,817,943
Profitability/Efficiency Ratios						
Revenue Growth (ttm)	64.11%	53.76%	-38.21%	18.79%	-2.18%	19.25%
Revenue Growth (36m)	106.25%	74.36%	-14.20%	58.42%	13.38%	47.64%
Gross Profit Margin	84.67%	81.31%	71.94%	81.12%	70.18%	77.85%
Operating Margin	44.19%	28.64%	19.51%	18.35%	16.38%	25.41%
Net Margin	34.78%	23.51%	12.62%	13.01%	12.55%	19.29%
Dupont Decomposition						
ROA (%)	27.55%	15.68%	5.57%	9.13%	5.46%	12.68%
Leverage (Assets/Equity)	3.25	5.52	2.41	2.55	1.71	3.08
Financial Cost of Debt	0.99	0.98	0.65	0.88	0.92	0.88
Taxes Burden	0.79	0.84	1.00	0.81	0.83	0.85
ROE (%)	70.38%	71.02%	8.69%	16.47%	7.14%	34.74%
Activity Ratios						
Receivables Turnover	4.04	4.04	5.31	6.23	5.77	5.08
Days Sales Outstanding	90.43	90.25	68.71	58.55	63.26	74.24
Inventory Turnover	1.09	1.06	1.57	1.85	1.40	1.39
Days of Inventory on Hand	334.89	343.81	231.82	197.58	260.64	273.74
Payables Turnover	1.86	3.17	3.27	2.74	1.72	2.55
Days Payable outstanding	196.58	114.98	111.69	133.05	212.39	153.74
Fixed Asset Turnover	1.79	2.52	2.94	4.44	3.82	3.10
Total Asset Turnover	0.62	0.55	0.29	0.50	0.33	0.46
Cash Cycle (days)	228.74	319.07	188.84	123.08	111.51	194.25
Liquidity Ratios						
Quick Ratio	0.55	0.89	0.92	0.74	1.14	0.85
Current Ratio	0.74	1.15	1.17	0.93	1.46	1.09
Cash Ratio	0.12	0.12	0.48	0.20	0.27	0.24
Solvency Ratios						
Debt to Assets	0.21	0.36	0.27	0.28	0.12	0.25
Debt to Equity	0.67	2.00	0.65	0.71	0.21	0.85
Net Debt/Ebitda	0.47	1.76	1.92	1.46	0.78	1.28
Interest Coverage (EBIT/Interest Payments)	89.91	19.06	6.50	11.94	16.16	28.71
Valuation Ratios						
Price/Earnings per Share	25.98	81.67	20.11	33.41	23.01	36.84
Price/Sales	9.03	19.20	2.54	4.35	2.89	7.60
Price/Book	18.28	58.00	1.75	5.50	1.64	17.04
EV/Sales	9.27	19.78	3.14	4.80	3.07	8.01
EV/EBITDA	18.27	59.91	9.96	15.61	13.13	23.38
Stock Info						
YTD Total Return	-30.65%	-3.31%	-10.94%	-1.71%	1.64%	-8.99%
Float	99%	0.90	0.99	0.97	0.92	0.95
β	0.75	0.40	0.56	0.65	0.57	0.59
Dividend Yield	2.62%	0.75%	7.43%	2.38%	4.27%	3.49%
ESG Score(FV0)	6.18	5.73	5.09	5.59	5.94	5.71

Appendix 13: CEO & Board of Directors (Source: Novo Nordisk's 2024 Annual Report)

CEO & BOARD OF DIRECTORS					
Name	Gender	Age	Independence	Title	Other roles
Helge Lund	M	62	Independent	Chairman	Chair of the board of directors of BP p.l.c., Inkerman AS and Stiftelsen Værekraft.
Henrik Poulsen	M	58	Not Independent	Vice Chairman	Chair of the supervisory board of Carlsberg A/S and chair of the board of directors of Faersch A/S.
Mette Bojer Jensen	F	49	Not Independent	Employee Representative	-
Thomas Rantzaau	M	53	Not Independent	Chemist	-
Lars Rebien Sørensen	M	70	Independent	Observer	Chairman at Novo Holdings A/S
Elisabeth Dahl Christensen	F	59	Not Independent	Employee Representative	-
Liselotte Hyveled	F	59	Not Independent	Employee Representative	Chief Patient Officer and Principal Vice President of Patient Voice Strategy & Alliances
Dr Sylvie L Gregoire	F	63	Independent	Board Member	Co-founder and chair of the board of directors of CervoMed, Inc.
Kasim Kutay	M	60	Not Independent	Board Member	Member of the board of directors of Charles River Laboratories International, Inc.
Dr Martin W Mackay	M	68	Independent	Board Member	Member of the board of directors of Charles River Laboratories International, Inc.
Andreas Fibig	M	63	Independent	Board Member	Member of the board of directors of ExService Holdings, Inc., Indigo Agriculture Inc. and EvodiaBio ApS
Laurence Debroux	F	55	Independent	Board Member	Member of board of directors of Exor N.V
Christina Law	F	58	Independent	Board Member	Group CEO of Raintree Group of Companies

Appendix 14: Cost of Debt (Source: Bloomberg, Damodaran and Author's Analysis)

Method 1- Default Risk Model

Company Default Spread Estimation	
Ratios	Amount
Interest Coverage Ratio - 2025	
Interest Coverage Ratio	74.18
Company Default spread- 2025	0.69%

Cost of Debt Estimation (Default Risk Model)	
Indicator	CDS 2025
Risk-free Rate	2%
Country Default Spread	0.0%
Company Default Spread	0.69%
Cost of Debt (DRM)	2.4%

Default Spread Table				
Interest Coverage Ratio		Rating Moody's	Rating Fitch & S&P	Spread is
Greater than	Less than			
-100000	0.20	D2	D	20.00%
0.2	0.65	C2	C	17.50%
0.65	0.80	Ca2	CC	15.78%
0.8	1.25	Caa	CCC	11.57%
1.25	1.50	B3	B-	7.37%
1.5	1.75	B2	V	5.26%
1.75	2.00	B1	B+	4.55%
2	2.25	Ba2	BB	3.13%
2.25	2.50	Ba1	BB+	2.42%
2.5	3.00	Baa2	BBB	2.00%
3	4.25	A3	A-	1.62%
4.25	5.50	A2	A	1.42%
5.5	6.50	A1	A+	1.23%
6.5	8.50	Aa2	AA	0.85%
8.5	100000.00	Aaa	AAA	0.69%

Source: Damodaran (2025)

Method 2- Interest Expense/Total Debt

	2025	2024	2023
Interest Expense	-1,953	-1,640	-542
Actual Debt	104,939	102,787	27,006
Interest Expense/Total Debt	1.9%	1.6%	2.0%

Method 3- Bonds YTM method

ISIN:	Amount	Coupon	Coupon frequency	Maturity date	YTM close
XS3002553538	900 million	3.63%	Yearly	27/05/2033	3.63%

Appendix 15: Beta Estimation (Source: Bloomberg, Damodaran and Author's Analysis)

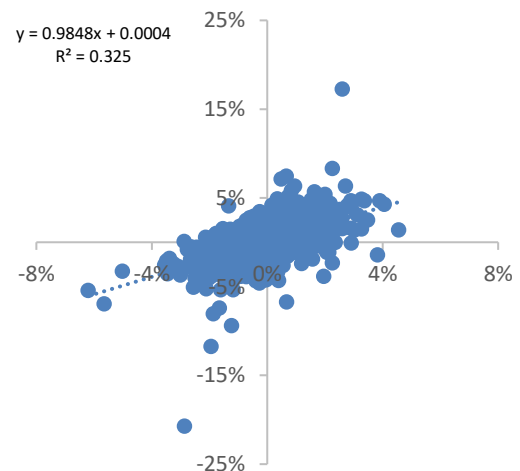
Method 1- Beta by sector

	2025
Unlevered Beta-Drugs (Pharmaceutical) industry	0.95
Tax rate	22.0%
Debt-Equity (Novo Nordisk)	0.42
Novo Nordisk Levered Beta	1.26

Source: Damodaran

Method 2- Beta by regression

Beta	0.98
Benchmark	OMX Copenhagen 25
Data points	5 years, Daily



Appendix 16: WACC Method- Enterprise Value and Equity Value determination (Source: Author's Analysis)

Cash-Flow (DKK' Mn)	Enterprise Value determination - FCFF								
	Year								Terminal
	2026 F	2027 F	2028 F	2029 F	2030 F	2031 F	2032 F	2033 F	
FCFF									
NOPAT	120,450	138,879	149,812	155,977	157,686	154,049	148,254	152,187	152,187
%YoY		15.3%	7.9%	4.1%	1.1%	-2.3%	-3.8%	2.7%	
(+) Non cash Charges									
Amortizations & Depreciations	11,483	15,012	18,933	22,980	26,945	30,638	33,864	36,529	36,529
%YoY		30.7%	26.1%	21.4%	17.3%	13.7%	10.5%	7.9%	
Other Non-Cash Items	23,945	24,340	24,569	24,692	24,717	24,626	24,490	24,565	24,565
%YoY		1.7%	0.9%	0.5%	0.1%	-0.4%	-0.6%	0.3%	
(-) Net Working Capital									
(-) Change in Net Working Capital	7,224	13,579	10,678	6,172	3,009	-1,415	-3,732	2,358	2,358
%YoY		88.0%	-21.4%	-42.2%	-51.3%	-147.0%	163.8%	-163.2%	
(-) Capital Expenditures									
Capex - Additions to PP&E	63,956	67,530	66,524	62,885	57,245	49,864	42,227	37,351	37,351
%YoY		5.6%	-1.5%	-5.5%	-9.0%	-12.9%	-15.3%	-11.5%	
(=) FCFF	84,897	97,122	116,111	134,592	149,095	160,863	168,113	173,573	173,573
WACC									
Cost of Equity									
Cost of Equity	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%
Risk Free rate	2.48%								
Levered Beta	1.26								
Market Risk Premium	5.10%								
Cost of Debt									
Cost of debt	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%
Tax Rate	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%	22.00%
After-tax cost of debt	2.83%	2.83%	2.83%	2.83%	2.83%	2.83%	2.83%	2.83%	2.83%
Targets									
Target D/E									71.6%
Target D/V									41.74%
Target WACC									6.4%
WACC									
Debt weight	41.74%	29.64%	27.04%	25.87%	24.29%	21.43%	17.09%	12.83%	
Equity weight	58.26%	70.36%	72.96%	74.13%	75.71%	78.57%	82.91%	87.17%	
WACC	6.4%	7.1%	7.3%	7.3%	7.4%	7.6%	7.9%	8.1%	8.1%

FCFF (WACC) - Price Target Determination (DKK' Mn)				
Forecast Year	Free cash Flow	WACC	Discount Factor	Present Value of FCFF
(+) Enterprise Value				
2026 F	84697	6.4%	0.94	79,620
2027 F	97122	6.4%	0.88	85,826
2028 F	116111	6.4%	0.83	96,455
2029 F	134592	6.4%	0.78	105,104
2030 F	149095	6.4%	0.73	109,449
2031 F	160863	6.4%	0.69	111,008
2032 F	168113	6.4%	0.65	109,056
2033 F	173573	6.4%	0.61	105,847
Terminal Value	3,259,985	6.4%	0.57	1,868,807
Enterprise Value				2,671,172
(+) Cash and cash equivalents				
Cash and cash equivalents				23,594
Total Cash and Cash Equivalents				23594
Firm Value				
(-) Debt and Debt equivalents				
Short-term debt				13,107
Long-term Debt				74,132
Total Debt and Debt Equivalents				87,239
(-) Minorities (+associates)				
Minorities (+associates)				400
(-) Pension & Provisions				
Pension & Provisions				142373
Equity Value				
Outstanding Shares				4,453.9
Price Target (DKK/Share)				
				DKK 553.4
Upside Potential				
				29.74%

Appendix 17: Terminal Growth Rate (Source: Bloomberg and Author's Analysis)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capex	-25,806	-47,164	-65,000	-63,956	-67,530	-66,524	-62,885	-57,245	-49,864	-42,227	-37,351
D&A	7,289	8,545	8,155	11,483	15,012	18,933	22,980	26,945	30,638	33,864	36,529
Var. NWC	-12,245	-11,995	-10,336	-7,224	-13,579	-10,678	-6,172	-3,009	1,415	3,732	-2,358
EBIT(1-t)	82,004	101,899	113,019	120,450	138,879	149,812	155,977	157,686	154,049	148,254	152,187
Reinvestment Rate	37.5%	49.7%	59.4%	49.6%	47.6%	38.9%	29.5%	21.1%	11.6%	3.1%	2.1%
ROIC	45.2%	32.0%	29.8%	27.4%	27.7%	26.8%	25.7%	24.6%	23.3%	22.1%	22.6%
Terminal Growth Rate	17.0%	15.9%	17.7%	13.6%	13.2%	10.4%	7.6%	5.2%	2.7%	0.7%	0.5%
G											1.0%

Appendix 18: Scenarios- Base, Bullish and Bearish (Source: Author`s Analysis)

	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
Scenarios								
Base Case- Scenario 1								
Revenue	353135	402904	431671	447236	450363	438913	421817	431270
%Change	5.7%	20.6%	22.2%	11.0%	4.3%	-1.9%	-6.3%	-1.7%
Diabetes & Obesity Care	334929	384553	413036	428152	430943	419136	401568	410438
Rare Disease	18206	18124	17995	17888	17677	17449	17266	17110
Other Pipeline	0	227	640	1197	1743	2328	2984	3722
Bullish Case- Scenario 2								
Revenue	373838	448471	507439	559316	601020	626344	645031	700968
%Change	11.9%	20.0%	13.1%	10.2%	7.5%	4.2%	3.0%	8.7%
Diabetes & Obesity Care	355632	430120	488804	540232	581600	606567	624781	680135
Rare Disease	18206	18124	17995	17888	17677	17449	17266	17110
Other Pipeline	0	227	640	1197	1743	2328	2984	3722
Bearish Case - Scenario 3								
Revenue	331676	358027	367972	364685	350308	324653	295659	181888
%Change	-0.7%	7.9%	2.8%	-0.9%	-3.9%	-7.3%	-8.9%	-38.5%
Diabetes & Obesity Care	313470	339677	349337	345601	330888	304876	275410	161056
Rare Disease	18206	18124	17995	17888	17677	17449	17266	17110
Other Pipeline	0	227	640	1197	1743	2328	2984	3722
LIVE CASE								
Revenue	353135	402904	431671	447236	450363	438913	421817	431270
%Change	5.7%	20.6%	22.2%	11.0%	4.3%	-1.9%	-6.3%	-1.7%
Diabetes & Obesity Care	334929	384553	413036	428152	430943	419136	401568	410438
Rare Disease	18206	18124	17995	17888	17677	17449	17266	17110
Other Pipeline	0	227	640	1197	1743	2328	2984	3722

Appendix 19: Sensitivity Analysis (Source: Author`s Analysis)

		Terminal growth rate (g)				
Wacc	DKK 553.39	2.1%	1.5%	1.0%	0.5%	0.0%
	5.4%	887.97	778.72	703.22	643.20	594.34
	5.9%	759.29	678.29	620.50	573.46	534.42
	6.4%	660.62	598.69	553.39	515.80	484.10
	6.9%	582.61	534.11	497.90	467.37	441.28
	7.4%	519.43	480.70	451.29	426.15	404.42
	7.9%	467.27	435.82	411.60	390.67	372.39

Appendix 20: Operational Risks- Impact and Mitigants (Source: Novo Nordisk's 2024 Annual Report)

Key Risks	Description	Impact	Mitigating actions
Research and Clinical Pipeline Risks	Findings in clinical activities, regulatory processes or misjudging of commercial potential, leading to delays or failure of products in the pipeline.	- Patients would not benefit from innovative treatments. - Could have an adverse impact on sales, profits and market position.	- Pre-clinical and clinical activities to demonstrate safety and efficacy. - Consultations with regulators to review pre-clinical and clinical findings and obtain guidance on development path.
Product Supply, Quality and Safety Risks	Higher-than-expected demand or disruption of product supply due to, e.g. geopolitical instability or quality issues may compromise product availability, ultimately impacting patients and representing a lost commercial opportunity. In addition, there could be risks related to safety and product liability	- Product shortages could have potential implications for patients. - Could jeopardise reputation and license to operate if regulatory compliance is not ensured. - Could have an adverse impact on sales, profits and market position. - Compromised patient safety and exposure to product liability legal proceedings.	- Significantly expanding global production with multiple facilities and safety stock to reduce supply risk. - Planning and management of supply chain. - Regular quality audits of internal units and suppliers to document GMP compliance. - Identification and correction of root causes when issues are identified. If necessary, products are recalled.
Commercialisation Risks	Competitive pressures, as well as market dynamics and geopolitical, macroeconomic or healthcare crises (e.g. pandemics) leading to reduced payer ability and willingness to pay.	- Market dynamics could impact price levels and patient access. - Could have an adverse impact on sales, profits and market position	- Innovation of novel products, clinical trial data and real-world evidence demonstrate added value of new products. - Payer negotiations to ensure improved patient access. - Increased and new access and affordability initiatives.
IT Security Risks	Disruption to IT systems, such as cyber-attacks or infrastructure failure resulting in business disruption or breach of data confidentiality	- Could limit our ability to produce and safeguard product quality. - Could compromise patients' or other individuals' privacy. - Could limit our ability to maintain operations or limit future business opportunities if proprietary information is lost. - Could have an adverse impact on sales, profits and market position.	- Company-wide information security awareness activities. - Continuity plans for non-availability of IT systems. - Company-wide internal audit of IT security controls. - Detection and protection mechanisms in IT systems and business processes.
Financial Risks	Exchange rate fluctuations (mainly in USD, CNY, JPY and CAD), disputes with tax authorities and changes to tax legislation and interpretation.	- Could lead to tax adjustments, fines and higher-than-expected tax level. - Could have an adverse impact on sales and profits.	- Hedging for selected currencies. - Integrated treasury management. - Applicable taxes paid in jurisdictions where business activity generates profits and multi-year Advance Pricing Agreements with tax authorities.
Legal, Patents and Compliance Risks	Breach of legislation, industry codes or company policies. Competitors asserting patents against Novo Nordisk or challenging patents critical for protection of commercial product and pipeline candidates.	- Potential exposure to investigations, criminal and civil sanctions and other penalties. - Could compromise our reputation and the rights and integrity of individuals involved. - Unexpected loss of exclusivity for, or injunctions against, existing and pipeline products could have an adverse impact on future sales. - Could have an adverse impact on sales, profits and market position.	- Legal review of key activities. - Code of Conduct integrated in our business. - Compliance Hotline in place. - Internal Audit of compliance with business ethics standards. - Internal controls to minimise vulnerability to patent infringement and invalidity actions.

Appendix 21: Porter's Five Forces- Novo Nordisk (Source: Author's Analysis)

Strengths	Weaknesses
❖ Market Leadership in Diabetes Care: Strong portfolio of insulin products (e.g., Tresiba, Levemir, NovoRapid) and GLP-1 receptor agonists (e.g., Ozempic, Rybelsus, Victoza); ❖ Innovative Product Pipeline: Success of GLP-1 receptor agonists like Ozempic for diabetes and Wegovy for obesity; ❖ Strong Financial Performance: Robust financial growth, particularly in 2023 and 2024.	❖ Overdependence on Diabetes and Obesity Markets: Lack of product diversification compared to competitors like Roche or Sanofi; ❖ Pricing Pressure: Faces increasing pressure on insulin pricing, especially in the U.S. market
Opportunities	Threats
❖ Growing Obesity Market: Wegovy has already gained approval for chronic weight management; ❖ Expansion into New Therapeutic Areas: Actively exploring areas beyond diabetes, such as cardiovascular diseases, non-alcoholic steatohepatitis (NASH), and kidney diseases; ❖ Digital Health and AI: Opportunities to integrate AI and digital tools into diabetes management (e.g., smart insulin pens, continuous glucose monitoring systems).	❖ Intense Competition: Particularly fierce in the insulin and GLP-1 segments; ❖ Patent Expiry: Generics and biosimilars could erode Novo Nordisk's market share and impact profitability as patents expire; ❖ Regulatory and Pricing Pressures: Increasing scrutiny on drug prices, particularly in the U.S. and Europe.

Appendix 22: ESG Risk Ratings- 2024 (Source: Sustainalytics)

Company ESG Risk Ratings (2024)- Sustainalytics	
Astellas Pharma Inc	22.4
AstraZeneca PLC	22.3
AbbVie Inc	24.3
Bayer AG	27.1
Bristol-Myers Squibb Co	17.9
Chugai Pharmaceutical Co Ltd	20.2
Daiichi Sankyo Co Ltd	19.9
Eli Lilly & Co	23.6
Eisai Co Ltd	26.5
GSK PLC	14.9
Johnson & Johnson	22.5
Merck & Co Inc	19.5
Novartis AG	15.6
Novo Nordisk A/S	23
Otsuka Holdings Co Ltd	23.4
Pfizer Inc	18.6
Roche Holding AG	24
Sanofi SA	18.7
Takeda Pharmaceutical Co Ltd	21.3



References

- Bloomberg. (2024) Novo Nordisk R&D and growth strategy. [online] Available at: <https://www.bloomberg.com/> [Accessed 28 Jan. 2025].
- Bloomberg Terminal. [Accessed Multiple time between January 2025- June 2025].
- CFA Institute. (2020) Equity asset valuation. 4th ed. Hoboken, NJ: Wiley.
- CheManager. (2025) Novo Nordisk's CEO Lars Fruergaard Jørgensen steps down. [online] Available at: <https://chemanager-online.com/en/news/novo-nordisk-039-s-ceo-lars-fruergaard-jorgensen-steps-down> [Accessed 2 May 2025].
- Cleveland Clinic. (2022) Growth hormone deficiency (GHD). [online] Available at: <https://my.clevelandclinic.org/health/diseases/23343-growth-hormone-deficiency-ghd> [Accessed 19 Apr. 2025].
- Damodaran, A. (2025) Betas by sector (US). [online] Available at: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html [Accessed 10 Feb. 2025].
- Damodaran, A. (2025) Country risk premia. [online] Available at: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html [Accessed 11 Feb. 2025].
- Deloitte. (2023) Pharma study: R&D returns are improving. [online] Available at: <https://www.deloitte.com/ch/en/about/press-room/deloitte-pharma-study-r-and-d-returns-are-improving.html> [Accessed 14 Feb. 2025].
- Fernández, P., Garcia de la Garza, D., & Fernández Acín, L. (2025) Survey: Market Risk Premium and Risk-Free Rate used for 54 countries in 2025. [online] SSRN. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5260463 [Accessed 20 May 2025].
- Financial Times. (2025) Novo Nordisk and the weight loss drug revolution. [online] Available at: <https://www.ft.com/> [Accessed 30 May 2025].
- Fortune Business Insights. (2024) Hemophilia drugs market. [online] Available at: <https://www.fortunebusinessinsights.com/industry-reports/hemophilia-drugs-market-100068> [Accessed 18 Apr. 2025].
- GCO - Global Cancer Observatory. (2025) [online] Available at: <https://gco.iarc.fr/en> [Accessed 21 Mar. 2025].
- GlobalData. (2024) Diabetes market dynamics & forecast 2024–2033. [online] Available at: <https://www.globaldata.com/> [Accessed 3 Feb. 2025].
- IQVIA. (2024) Global medicine spending and usage trends. [online] Available at: <https://www.iqvia.com/> [Accessed 5 Apr. 2025].
- KFF. (2024) KFF Health Tracking Poll – May 2024: The public's use and views of GLP-1 drugs. [online] Available at: <https://www.kff.org/health-costs/poll-finding/kff-health-tracking-poll-may-2024-the-publics-use-and-views-of-glp-1-drugs/?utm> [Accessed 28 May 2025].
- Novo Nordisk. (2025) Annual Report 2024. [online] Available at: <https://www.novonordisk.com/investors/financial-results.html> [Accessed 10 Feb 2025].

Novo Nordisk. (2024) Annual Report 2023. [online] Available at: <https://www.novonordisk.com/investors/financial-results.html> [Accessed 28 Feb. 2025].

Novo Nordisk. (2023) Annual Report 2022. [online] Available at: <https://www.novonordisk.com/investors/financial-results.html> [Accessed 28 Feb. 2024].

Novo Nordisk. (2025) Q1 2025 earnings release. [online] Available at: <https://www.novonordisk.com/investors/financial-results.html> [Accessed 15 Apr. 2025].

Pharma Intelligence (BIO). (2021) Clinical development success rates 2011–2020. [online] Available at: https://go.bio.org/rs/490-EHZ-999/images/ClinicalDevelopmentSuccessRates2011_2020.pdf [Accessed 9 Mar. 2025].

Pharmagellan. (2016) Launch curves. [online] Available at: <https://www.pharmagellan.com/blog/launch-curves> [Accessed 17 Mar. 2025].

Refinitiv Eikon Terminal. [Accessed multiple times between January 2025 – June 2025].

Reuters. (2025) Novo Nordisk faces GLP-1 rivalry from Eli Lilly and Pfizer. [online] Available at: <https://www.reuters.com/> [Accessed 9 Apr. 2025].

Reuters. (2025) Novo Nordisk's former chief makes comeback to steer choice of new CEO. [online] Available at: <https://www.reuters.com/sustainability/boards-policy-regulation/novo-nordisks-former-chief-makes-comeback-steer-choice-new-ceo-2025-05-22/> [Accessed 24 May 2025].

S&P Global. (2025) Novo Nordisk's credit rating disclosure. [online] Available at: <https://disclosure.spglobal.com/ratings/pt/regulatory/article/-/view/type/HTML/id/3371802> [Accessed 1 Mar. 2025].

Statista. (2024) Revenue of the diabetes care market worldwide 2016–2030. [online] Available at: <https://www.statista.com/> [Accessed 12 May 2025].

U.S. Treasury. (2025) Daily Treasury yield curve rates. [online] Available at: https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type=daily_treasury_yield_curve&field_tdr_date_value=2025 [Accessed 4 Jan. 2025].

WFH - World Federation of Hemophilia. (2025) [online] Available at: <https://wfh.org/> [Accessed 15 Apr. 2025].

WHO. (2023) Global diabetes overview. [online] World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/diabetes> [Accessed 16 Jan. 2025].

WIPO. (2023) Novo Nordisk patent landscape. [online] World Intellectual Property Organization. Available at: <https://www.wipo.int/patentscope/en/> [Accessed 21 Jan. 2025].

World Obesity Federation. (2024) World obesity atlas 2024. [online] Available at: <https://www.worldobesity.org/news/world-obesity-atlas-2024> [Accessed 26 Mar. 2025].

Disclosures and Disclaimers

AI Disclaimer

This project was developed with strict adherence to the academic integrity policies and guidelines set forth by ISEG, Universidade de Lisboa. The work presented herein is the result of my own research, analysis, and writing, unless otherwise cited. In the interest of transparency, I provide the following disclosure regarding the use of artificial intelligence (AI) tools in the creation of this project:

1. I disclose that AI tools were employed during the development of this thesis as follows:

- AI-based research tools were used to assist in data collection.
- AI-powered software was utilized for data analysis and visualization.
- Generative AI tools were consulted for brainstorming and outlining purposes. However, all final writing, synthesis, and critical analysis are my own work. Instances where AI contributions were significant are clearly cited and acknowledged.

Nonetheless, I have ensured that the use of AI tools did not compromise the originality and integrity of my work. All sources of information, whether traditional or AI-assisted, have been appropriately cited in accordance with academic standards. The ethical use of AI in research and writing has been a guiding principle throughout the preparation of this thesis.

I understand the importance of maintaining academic integrity and take full responsibility for the content and originality of this work.

Gabriel Gonçalves 29/06/2025

Recommendation Disclaimer

This report is published for educational purposes by Master students and does not constitute an offer or a solicitation of an offer to buy or sell any security, nor is it an investment recommendation as defined by the *Código do Mercado de Valores Mobiliários (Portuguese Securities Market Code)*. The student is not registered with *Comissão de Mercado de Valores Mobiliários (CMVM)* as financial analysts, financial intermediaries or entities/persons offering any service of financial intermediation, to which *Regulamento (Regulation) 3º/2010 of CMVM* would be applicable.

This report was prepared by a Master's student in Finance at ISEG – Lisbon School of Economics and Management, exclusively for the Master's Final Work. The opinions expressed and estimates contained herein reflect the personal views of the author about the subject company, for which he is solely responsible. Neither ISEG, nor its faculty accepts responsibility whatsoever for the content of this report or any consequences of its use. The valuation methodologies and the financial model contained in this report was revised by the supervisor.

The information set forth herein has been obtained or derived from sources generally available to the public and believed by the author to be reliable, but the author does not make any representation or warranty, express or implied, as to its accuracy or completeness. The information is not intended to be used as the basis of any investment decisions by any person or entity.

Recommendation System

Level of Risk	SELL	REDUCE	HOLD/NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%