Investment Analysis Report

of

Prepared & Analysed By:

Shreyash Sanjog Chavan (20062676)

1. Introduction

This report has been prepared for the Executive Board of Directors of Wood's plc to provide a detailed investment analysis of two target companies, **Microsoft Corporation** (MSFT) and **Novo Nordisk A/S** (NOVO-B).

Microsoft Corporation is a US-based leading technology company, and it is listed on NASDAQ Stock Exchange as MSFT. Novo Nordisk is a Denmark-based leading global healthcare company which is listed on the NASDAQ Copenhagen (Denmark Securities Exchange) as NOVO-B.

The analysis includes an assessment of AI-generated analysis, a comparative financial analysis for both companies, and market and share price analysis.

Reviewing the financial statements and ratios analysis provides a baseline understanding of the company's performance. Share price analysis provides insights into their trends, risk-return profile and market movements. Based on these analyses, an investment recommendation will then be provided.

2. Company Overviews

2.1 Microsoft Corporation

Microsoft Corporation is a company in the United States, focused on technology products. It is based in Redmond, Washington. Microsoft started in 1975 and was involved in making personal computer software like Windows. Now Microsoft expands its business, including Internet services, cloud computing, artificial intelligence, video gaming and many more. Microsoft is a Big Tech software company and one of the most trusted brands in the whole world.

Microsoft's fiscal year ends in June. The company has been doing some big things in artificial intelligence. They made a deal with OpenAI. This deal is worth a lot of money. Microsoft is using AI (Copilot) in all of its products now. The company also acquired Activision Blizzard, a deal for Microsoft's gaming division, for about $68.7 billion in October 2023. Microsoft's gaming division is going to be a lot bigger because of this deal.

2.2 Novo Nordisk

Novo Nordisk is a leading pharmaceutical company. Its HQ is in Bagsvaerd, Denmark. The company was founded in 1923. It has production facilities in 13 countries, research and development centres in five countries (China, Denmark, India, UK and US) and 80 offices globally. It aims to defeat serious chronic diseases such as diabetes, obesity, and rare blood and endocrine diseases, through innovative biological medicines.

It has two share classes (A and B). Its B shares are listed on NASDAQ Copenhagen, which is Denmark Securities Exchange, and on the New York Stock Exchange (NYSE) as American Depository Receipts (ADRs).

Novo's revenue increases from 2023 to 2025, with a CAGR of 15%. Its other profitability indicators also showed upward trends over the period. Interest expenses rose significantly from 2023 to 2025, mainly due to increased borrowings in 2024 and 2025. However, EPS continued to increase, and the company maintained a consistent dividend payout ratio of c. 50%.

3. AI-Assisted Analysis and Critical Review

As required by the Wood's plc, our team used ChatGPT as an AI software to conduct the financial statements analysis (analysis and ratios). As instructed, AI calculated the ratios and performed the analysis including the ratios movements explanation. To do so, annual reports from FY23 to FY25 were input into the AI.

The team has validated AI's analysis by our manual calculation of the ratios in the Excel spreadsheets and the annual reports of the two companies.

Here, there are a few differences in the ratio formula used by the team and the AI. However, both are not wrong technically. For the ratios that involved balance sheet items, AI used average value and the team used year end value (e.g., average total assets vs year end total assets).

Regarding gearing ratio, the team used long-term debt divided by the sum of long-term debt and equity while AI used total debt divided by the total equity. Both are valid formulas to measure financial risk of the company, the higher the ratio, the higher the financial risk.

For dividend cover, the team used net profit after tax divided by the divided paid, while AI used diluted EPS divided by the dividend per share and for EPS, AI used diluted EPS as reported and the team used basic EPS as reported. The only different part is the diluted portion. In these two ratios, even though it will not make much difference in explaining the ratio movements, AI's use of diluted figures is more accurate.

Ratios	**Manual Calculated Ratio Formula**	**AI Ratio Formula**
Gross Profit Margin	$\frac{Gross\ Profit}{Sales}$	$\frac{Gross\ Profit}{Sales}$
Net Profit Margin	$\frac{Net\ Profit\ After\ Tax}{Sales}$	$\frac{Net\ Profit\ After\ Tax}{Sales}$
Sales-to-Assets	$\frac{Sales}{Total\ Assets}$	$\frac{Sales}{Average\ Total\ Assets}$
Return on Assts (ROA)	$\frac{Net\ Profit\ After\ Tax}{Total\ Assets}$	$\frac{Net\ Profit\ After\ Tax}{Average\ Total\ Assets}$
Current Ratio	$\frac{Current\ Assets}{Current\ Liabilities}$	$\frac{Current\ Assets}{Current\ Liabilities}$
Quick Ratio	$\frac{Current\ Assets - Inventory}{Current\ Liabilities}$	$\frac{Current\ Assets - Inventory}{Current\ Liabilities}$
Gearing Ratio	$\frac{Long-term\ Debt}{(Long-term\ Debt + Total\ Equity)}$	$\frac{Total\ Debt}{Total\ Equity}$
Interest Cover	$\frac{Profit\ Before\ Interest\ \&\ Tax}{Interest\ Expense}$	$\frac{Profit\ Before\ Interest\ \&\ Tax}{Interest\ Expense}$
Dividend Cover	$\frac{Net\ Profit\ After\ Tax}{Dividend\ Paid}$	$\frac{Diluted\ EPS}{Dividend\ Per\ Share}$
Inventory Turnover	$\frac{COGS}{Inventory}$	$\frac{COGS}{Average\ Inventory}$
Inventory Days	$\frac{Inventory}{COGS} * 365$	$\frac{Average\ Inventory}{COGS} * 365$
A/R Days	$\frac{Account\ Receivable}{Revenue} * 365$	$\frac{Average\ Account\ Receivable}{Revenue} * 365$
A/P Days	$\frac{Account\ Payable}{COGS} * 365$	$\frac{Average\ Account\ Payable}{COGS} * 365$
EPS	*Taken from the annual report (Basic EPS)*	*Taken from the annual report (Diluted EPS)*

Return on Equity (ROE)	$\frac{Net\ Profit\ After\ Tax}{Total\ Equity}$	$\frac{Net\ Profit\ After\ Tax}{Average\ Total\ Equity}$
Return on Capital Employed (ROCE)	$\frac{Profit\ Before\ Interest\ \&\ Tax}{Total\ Assets - Current\ Liabilities}$	$\frac{Profit\ Before\ Interest\ \&\ Tax}{Average\ Capital\ Employed}$

3.1 Microsoft Corporation – AI Review Findings

3.1.1 Profitability

Profitability Ratios	Manual Calculation				AI Calculation			
	FY (Ended in June 30)			Change (%)	FY (Ended in June 30)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
GP (%)	68.9%	69.8%	68.8%	-0.1%	68.9%	69.8%	68.8%	-0.1%
Net Profit (%)	34.1%	36.0%	36.1%	5.9%	34.2%	36.0%	36.2%	5.9%
Sales-to-Assets	51.4%	47.9%	45.5%	-11.5%	55.0%	53.0%	50.0%	-9.1%
Return on Assets (ROA)	17.6%	17.2%	16.5%	-6.3%	18.6%	19.1%	18.0%	-3.4%

For all profitability ratios, AI's calculations are pretty much consistent with the manual calculation, thus, resulting the same favourable (highlighted in green) and unfavourable (highlighted in red) changes under the change (%) column.

AI's Explanation

Gross profit margin improved from 2023 to 2024, then eased in 2025. The 2024 improvement reflects broad revenue growth and operating leverage, while Microsoft itself notes that gross margin percentage in 2025 declined slightly because Intelligent Cloud margins were pressured by the cost of scaling AI infrastructure. msft 2023-24 msft - annual report 2024-2025p...

Net profit margin increased across the three years, from 34.2% to 36.2%. Even though gross margin softened in 2025, the company still converted more revenue into bottom-line profit because revenue growth remained strong and operating expense growth was slower than revenue growth. 2025 also benefited from lower interest expense than 2024. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Sales-to-assets, **ROA**, and **ROCE** all weakened slightly by 2025. This is mainly a capital-base story. Microsoft's total assets and property, plant and equipment expanded sharply, especially in 2024 and 2025, as it invested heavily in cloud and AI infrastructure. Revenue and profits still grew, but not as fast as the asset base, so asset productivity ratios softened. msft 2023-24 msft - annual report 2024-2025p...

Validation

For gross margin movement, AI's explanation is accurate. Revenue indeed increased by 15.7% in FY24 and 14.9% in FY25. In FY25, it is correct that slight declined of gross profit margin is due to the impact of scaling AI infrastructure (pg. 70 of FY25 annual report).

For net profit margin, AI's explanation is correct. The overall revenue growth from FY23 to FY25 is 32.9% while operating expense and financial expense decreased by 13.6% and 21.2%, respectively. As a result, net profit margin increased by 40.7%.

AI's explanation of Sales-to-assets, ROA and ROCE movement is correct because total assets and PPE increased by 50% and 114% from FY23 to FY25, respectively (pg. 66 of FY25 annual report mentions that MSFT makes investment in AI and cloud infrastructure). But revenue growth is only 33% over the period.

3.1.2 Liquidity & Solvency

Liquidity and Solvency Ratios	Manual Calculation				AI Calculation			
	FY (Ended in June 30)			Change (%)	FY (Ended in June 30)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Current Ratio	1.77	1.27	1.35	-23.5%	1.77	1.27	1.35	-23.7%
Quick Ratio	1.75	1.27	1.35	-22.8%	1.74	1.26	1.34	-23.0%
Gearing Ratio	16.9%	13.7%	10.5%	-38.1%	23.0%	17.0%	13.0%	-43.5%
Interest Cover	45	37	54	19.8%	45	37	54	19.8%
Dividend Cover	3.7	4.0	4.2	15.7%	3.6	3.9	4.1	15.4%

AI's Explanation

Current ratio and **quick ratio** dropped sharply in 2024, then recovered modestly in 2025. The 2024 deterioration was driven by a fall in cash and short-term investments and a rise in current liabilities, including short-term debt and higher payables/unearned revenue. The slight rebound in 2025 came from rebuilding cash and short-term investments and eliminating short-term debt. msft 2023-24 msft - annual report 2024-2025p...

Gearing ratio declined steadily from 0.23x to 0.13x. That indicates a stronger equity-funded balance sheet. Total equity rose materially each year through retained earnings, while total debt trended down. Microsoft remained lightly geared throughout the period. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Interest cover remained extremely strong in all years. It dipped in 2024 because operating profit rose but interest expense was still relatively elevated. It then improved sharply in 2025 because operating profit increased again while interest expense fell; Microsoft explicitly attributes lower 2025 interest expense mainly to maturities of commercial paper and higher capitalization of debt interest expense. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Dividend cover improved each year, from 3.56x to 4.11x. EPS grew faster than the dividend per share, so Microsoft's dividend became more comfortably covered by earnings. That points to strong distribution capacity. msft 2023-24 msft - annual report 2024-2025p...

Validation

AI's explanation about falls in current and quick ratios in FY24 and FY25 is correct. In FY24, cash & short-term investments fell by 32% while FY24 current liabilities increased by 20%. In FY25, cash & short-term investments increased by 25% while current liabilities increased only by 13%.

For gearing ratio, AI's formula is D/E while our manually calculated formula is D/ (D+E). Both are right and the first one indicates how many times the debt portion is compared with equity, and our manual calculation ratio indicates the debt proportion. The higher they are, the higher the financial risk, and vice versa. In AI's explanation, the reason of gearing ratio explanation is mainly due to the increase in equity through retained earnings. This is correct because from FY23 to FY25, debt decreased by just 4% while retained earnings increased by 100%, thereby, total equity grew significantly over the period.

AI's explanation of interest cover is correct too. Interest cover improved and it is mainly due to the 45% increase in operating profit and 21% decrease in interest expense from FY23 to FY25 (pg. 78 of FY25 annual report).

For dividend cover explanation, AI is correct. EPS increased by 40.9% from FY23 to FY25 while DPS increased by 21.9% over the period. This indicates strong dividend distribution capacity of Microsoft.

3.1.3 Efficiency

Efficiency Ratios	Manual Calculation				AI Calculation			
	FY (Ended in June 30)			Change (%)	FY (Ended in June 30)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Inventory Turnover	26.3	59.5	93.6	255.4%	21.0	39.5	80.6	282.8%
Inventory Days	14	6	4	-71.9%	17	9	5	-74.1%
Receivable Days	84	85	91	8.0%	80	78	82	2.5%
Payable Days	100	108	115	14.9%	102	99	103	0.9%

AI’s Explanation

Inventory turnover rose sharply and **inventory days** fell from 17.4 to 4.5 days. Mechanically, this comes from inventory shrinking from $2.5bn in 2023 to less than $1bn in 2025 while cost of revenue kept rising. In economic terms, this ratio is less important for Microsoft than for a manufacturing-heavy company because Microsoft is primarily a software, services and cloud business. msft 2023-24 msft - annual report 2024-2025p...

Accounts receivable days were broadly stable around 78–82 days. That suggests receivables grew broadly in line with revenue, with only a mild increase in 2025. **Accounts payable days** also stayed relatively stable around 99–103 days, implying no major structural shift in payment timing. msft 2023-24 msft - annual report 2024-2025p...

Validation

AI’s explanation of movement in inventory turnover and inventory days is correct, and it makes sense. It is true that in FY23, Microsoft carried about $2.5B of inventory and in FY25, it had only $938M , however cost of revenue increased by 33% from FY23 to FY25.

For AI’s explanation of account receivable days and account payable days is correct too.

3.1.4 Investment

Investment Ratios	Manual Calculation				AI Calculation			
	FY (Ended in June 30)			Change (%)	FY (Ended in June 30)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
EPS	9.72	11.86	13.70	40.9%	9.68	11.80	13.64	40.9%
Return on Equity	35.1%	32.8%	29.6%	-15.5%	38.8%	37.1%	33.3%	-14.3%
Return on Capital Employed	28.8%	28.3%	26.9%	-6.5%	30.7%	31.5%	29.7%	-3.0%

AI’s Explanation

EPS rose strongly each year, from 9.68 to 13.64, in line with higher net income and some support from ongoing share repurchases. msft 2023-24 msft - annual report 2024-2025p...

ROE fell from 38.8% in 2023 to 33.3% in 2025 despite rising profits. The reason is that equity rose even faster than net income, especially from retained earnings. So the decline does not signal weaker profitability in absolute terms; it reflects a much larger equity base. **ROCE** shows a similar pattern: still very strong, but slightly diluted by rapid capital expansion. msft 2023-24 msft - annual report 2024-2025p...

Validation

AI’s explanation of EPS is correct and accurate. EPS did increase by 40.9% from FY23 to FY25 which is in line with 40.7% increase of net income over the period. Page 84 of FY25 annual report also mentions that MSFT repurchased 31 million shares and 32 million shares in FY24 and FY25, respectively, through the share repurchase programme.

AI’s explanation of ROE and ROCE is also correct. Both ratios fell from FY23 to FY25 despite 40.7% increase in net profit over the period. Debt level also dropped slightly by 4% from FY23 to FY25. Thus, the only reason of declined ROE and ROCE ratios is the increase in equity mainly through significant increase in retained earnings.

3.1.5 Overall View

AI’s Explanation

> Microsoft’s ratios show a business that remained highly profitable, liquid, and conservatively financed. The main change over the period is not deterioration in core quality, but a shift toward heavier capital intensity as the company scaled AI and cloud infrastructure. Profitability stayed very strong, but asset efficiency ratios softened because the balance sheet expanded faster than revenue. msft 2023-24
> msft - annual report 2024-2025p...

Validation

The team finds that AI’s overall explanation is satisfactory. Page 34 of FY25 reports highlights that Microsoft will invest significant AI-related investments (i.e., a shift toward heavier capital intensity).

3.2 Novo Nordisk – AI Review Findings

3.2.1 Profitability

Profitability Ratios	NOVO				AI Calculation			
	FY (Ended in December 31)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
GP (%)	84.6%	84.7%	81.0%	-4.3%	84.6%	84.7%	81.0%	-4.3%
Net Profit (%)	36.0%	34.8%	33.1%	-8.0%	36.0%	34.8%	33.1%	-8.0%
Sales-to-Assets	73.9%	62.4%	56.9%	-22.9%	84.0%	74.0%	61.0%	-27.4%
Return on Assets (ROA)	26.6%	21.7%	18.9%	-29.1%	30.1%	25.9%	20.3%	-32.6%

For all profitability ratios, AI's calculations are pretty much consistent with the manual calculation.

<u>AI's Explanation</u>

Gross profit margin was exceptionally high in 2023 and 2024 at around 84.6%–84.7%, then dropped to 81.0% in 2025. In 2024, Novo explicitly says the slightly improved margin reflected a favorable product mix from higher GLP-1 sales and positive US gross-to-net price adjustments, partly offset by ongoing capacity expansion costs. In 2025, the margin decline reflects materially higher cost of goods sold relative to sales, consistent with a more demanding cost base after large expansion and integration activity.

novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Net profit margin declined from 36.0% in 2023 to 33.1% in 2025. The 2024 decline occurred even though sales and operating profit grew strongly, because financial expenses surged after the increase in borrowings. In 2025, margin weakened further because operating profit was hit by one-off restructuring costs of around DKK 8 billion and effects related to the former Catalent sites, even though net financial items improved.

novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Sales-to-assets, **ROA**, and **ROCE** all declined significantly over the three years. The key driver is the rapid expansion in the asset base: inventories, property, plant and equipment, intangibles/goodwill, and total assets all rose sharply, especially in 2024 and 2025. This came from heavy capacity expansion and the Catalent-related acquisition. Revenue and profit still increased, but not fast enough to offset the denominator effect. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

<u>Validation</u>

AI's explanation of gross profit margin is consistent with the annual reports FY24 and FY25, pg. 33 and 15, respectively. Gross margin falls by 4.3% from FY23 to FY25. In FY25, the increase in COGS is the main reason of declined gross profit margin and that increase in COGS is driven by the acquisition of production facilities in FY24 (i.e., inventory costs increased).

AI's explanation of net profit margin is true. In FY24, sales and operating profit increased by about 25% each, while there was significant increase in interest expense, this leads to lower net profit margin. In FY25, the slight declined in net profit was mainly driven by one-off restructuring costs related to the company-wide transformation (pg. 15 of FY25 annual report).

For sales-to-assets, ROE and ROCE, AI's explanation is correct. All ratios declined despite increase in sales and net profit. This is mainly due to the rapid expansion of its asset base by increasing capital expenditure for PPE, primarily related to investments in additional capacity for active pharmaceutical ingredient (API) production and fill-finish capacity for both current and future injectable and oral Products and business development activities, mainly related to the acquisition of Akero Therapeutics, Inc as per page 16 of FY25 annual report.

3.2.2 Liquidity & Solvency

Liquidity and Solvency Ratios	NOVO				AI Calculation			
	FY (Ended in December 31)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Current Ratio	0.82	0.74	0.80	-2.9%	0.82	0.74	0.80	-2.4%
Quick Ratio	0.64	0.56	0.57	-10.4%	0.64	0.55	0.57	-10.9%
Gearing Ratio	16.2%	38.5%	38.0%	135.3%	25.0%	72.0%	67.0%	168.0%
Interest Cover	121	17	19	-84.5%	121	17	19	-84.5%
Dividend Cover	2.63	2.29	1.98	-24.9%	1.98	1.99	1.97	-0.5%

AI's Explanation

Current ratio and **quick ratio** stayed below 1 throughout. That does not automatically imply distress. Novo Nordisk operates with a liability-heavy working-capital structure, including large provisions, sales deductions/product returns, and other operating liabilities, while remaining highly profitable and cash-generative. Still, the fall in 2024 shows liquidity became tighter on a balance-sheet basis after the debt-funded expansion and acquisition activity. The modest recovery in 2025 came from higher cash and current assets. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Gearing ratio jumped from 0.25x in 2023 to 0.72x in 2024, then eased slightly to 0.67x in 2025. This is one of the clearest changes in Novo's financial structure. Borrowings rose sharply in 2024 to fund the Catalent transaction and broader capacity expansion. Equity also increased strongly, which prevented gearing from rising further in 2025. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Interest cover remained strong, but the drop from 121x in 2023 to about 17–19x in 2024–2025 is still substantial. The reason is straightforward: financial expenses were very low in 2023, then rose sharply after the additional borrowing. In 2025, cover improved slightly because financial expenses fell and net financial items turned favorable, driven mainly by gains from hedging the US dollar, partly offset by financing costs related to Catalent. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Dividend cover stayed almost unchanged at about 2.0x in all three years. That is consistent with Novo Nordisk's stated dividend policy, which targets roughly a 50% payout ratio. So this stability is deliberate rather than accidental. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

Validation

For current and quick ratios AI's explanation, the team finds that AI's interpretation is consistent with annual reports. However, AI said that reduction of these ratios below 1 does not imply distress. Although it is true, it is worth to note that Novo inventory represents around 25% of total current assets. So, it should advise checking the inventory movement of Novo (this will discuss more in next section). As per page 110 of FY25, AI's explanation of liquidity of Novo becomes tighter part is correct.

AI's explanation of gearing ratio is correct. In FY24, Novo's debt portion increased and this is to fund the acquisition of Catalent (production facilities). This is true as evidenced by page 34 of FY24 annual report which said that acquisition is mainly debt-financed.

Interest cover explanation of AI is also correct. The ratio becomes lower due to increased debt in FY24 to fund the Catalent acquisition. But the ratio slightly bounced back from 17x in FY24 to 19x in FY25 due to the decrease in interest expense. As per FY25 page 16, the slight increase in ratio is also due to the gains from USD hedging.

Dividend cover ratio explanation is correct too. As per FY25 annual reports, Novo stated that dividend payout ratio is about 50%. However, due to its recent slower growth in revenue, it should be noted that if Novo can sustain this 50% payout ratio. AI did not mention about that.

3.2.3 Efficiency

Efficiency Ratios	NOVO				AI Calculation			
	FY (Ended in December 31)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Inventory Turnover	1.1	1.1	1.2	5.4%	1.3	1.2	1.3	2.4%
Inventory Days	325	335	308	-5.1%	287	300	280	-2.2%
Receivable Days	102	90	84	-17.8%	91	86	85	-6.9%
Payable Days	261	141	123	-53.1%	210	175	145	-30.7%

<u>AI's Explanation</u>

Inventory turnover remained low and **inventory days** very high relative to Microsoft, which is expected in pharmaceuticals. Novo holds significant inventory because of manufacturing lead times, regulatory requirements, supply reliability needs and the physical nature of its products. Inventory days worsened in 2024 as inventories expanded alongside capacity investment, then improved modestly in 2025 as cost of sales accelerated. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2024

Accounts receivable days improved gradually from 90.8 to 84.5 days, suggesting receivables were managed more efficiently relative to sales growth. **Accounts payable days** fell materially from 209.8 to 145.3 days, meaning payables did not keep pace with the growth in cost of sales. Part of that reflects the much larger operating scale and the 2025 re-presentation of some balance-sheet items. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

<u>Validation</u>

For Inventory turnover and inventory days AI explanation, it is not wrong that Novo needs to carry higher amount of inventory compared with Microsoft. However, inventory days of over 300 seems quite high and indicate that slow movement of Novo's inventory. Although Novo's inventory days are improving, it is still above 300 based on our manual calculation.

For A/R and A/P days of AI explanation, it is not wrong. However, its explanation is quite generic. A/R days are improving while A/P days are worsening. 53% reduction in A/P days from FY23 to FY25 is quite significant. However, it should mention about if this reduction of A/P days are due to the shorter credit terms provided by the suppliers. It is worth to note that Novo's cash & marketable securities represent 5% of total assets in FY25.

3.2.4 Investment

Investment Ratios	NOVO				AI Calculation			
	FY (Ended in December 31)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
EPS	18.67	22.67	23.06	23.5%	18.62	22.63	23.03	23.7%
Return on Equity	78.5%	70.4%	52.8%	-32.8%	88.1%	80.8%	60.7%	-31.1%
Return on Capital Employed	70.8%	51.7%	39.0%	-44.9%	77.4%	65.3%	44.4%	-42.6%

<u>AI's Explanation</u>

EPS increased strongly from 18.62 in 2023 to 23.03 in 2025, though growth was much slower in 2025 than in 2024. That matches the broader earnings pattern: explosive growth first, then consolidation. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

ROE and **ROCE** stayed extremely high but fell meaningfully by 2025. This does not mean Novo became weak; rather, it means the company built a much larger capital base very quickly. The acquisition of three former Catalent manufacturing sites and heavy investment in supply-chain capacity expanded both assets and capital employed faster than profit. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

<u>Validation</u>

For EPS, AI's explanation is correct. As mentioned previously at the start of the section 3, AI used diluted EPS and our manual calculation referred to basic EPS from the annual reports. AI's use of diluted EPS is more accurate and correct however, in this case, the values are not much different.

Both ROE and ROCE AI explanation is correct too. Both ratios declined by 32% and 44% respectively in FY24 and FY25 mainly because of the increase in capital base (debt and equity).

3.2.5 Overall View

<u>AI's Explanation</u>

Novo Nordisk's ratios show a company that remained highly profitable but became much more capital-intensive and more leveraged from 2024 onward. The big strategic story is transition: from extraordinary GLP-1-led growth into a phase where the company is funding capacity, integrating acquisitions, and absorbing restructuring and competitive pressure. Profitability is still excellent, but returns on capital are normalizing from exceptionally high levels. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

<u>Validation</u>

AI's overall explanation of Novo is correct. It is true that Novo is still a highly profitable company with about 80% gross profit margin and above 30% net profit margin. It is also true that Novo has become more leveraged due to acquisition in FY24. However, AI did not give feedback on the solvency risk or financial risk of Novo whether investors should be worried or not. And AI didn't mention about the slow demand of Novo's key products and its losing market shares. These will be discussed more in the market analysis section.

4. Comparative Analysis Between MSFT and NOVO

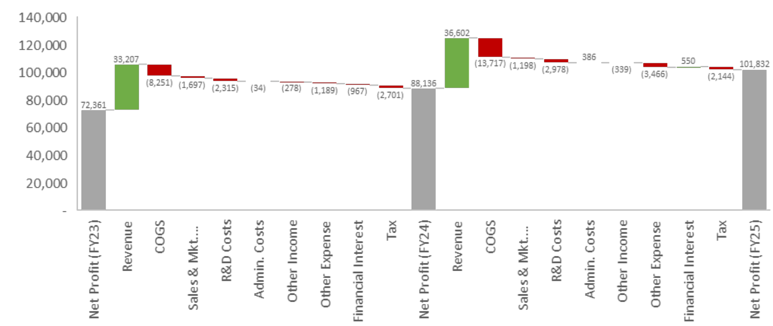
The following section includes review of Income Statement and Balance Sheet and Ratios analysis of Microsoft and Novo. Figures are sourced from their annual reports.

4.1 Income Statement Review

P&L Key Line Items	MSFT					NOVO				
	USD in Millions					DKK in Millions				
	FY (Ended in June 30)			Change (USD)	Change (%)	FY (Ended in December 31)			Change (DKK)	Change (%)
	2023	2024	2025	2023 - 2025	2023 - 2025	2023	2024	2025	2023 - 2025	2023 - 2025
Revenue	211,915	245,122	281,724	69,809	32.9%	232,261	290,403	309,064	76,803	33.1%
COGS	65,863	74,114	87,831	21,968	33.4%	35,765	44,522	58,788	23,023	64.4%
Gross Profit	146,052	171,008	193,893	47,841	32.8%	196,496	245,881	250,276	53,780	27.4%
Operating Expenses	57,529	61,575	65,365	7,836	13.6%	94,160	117,542	122,618	28,458	30.2%
Operating Profit	88,523	109,433	128,528	40,005	45.2%	102,574	128,339	127,658	25,084	24.5%
Interest Expenses	1,968	2,935	2,385	417	21.2%	845	7,346	6,778	5,933	702.1%
Net Profit	72,361	88,136	101,832	29,471	40.7%	83,683	100,988	102,434	18,751	22.4%

Overall, both companies delivered revenue and net profit growth between 2023 and 2025. Microsoft's gross profit, operating profit and net profit increased at much higher rates than those of Novo. While Microsoft's COGS growth remained broadly in line with revenue growth, Novo's COGS increased at a much faster rate primarily due to the increase in inventory cost base (acquisition of production facilities in FY24), indicating greater pressure on gross profit margin. Furthermore, as Microsoft's operating expenses rose only 13.6% compared with 30.6% for Novo, it highlights strong cost control of Microsoft. Novo also recorded a substantial rise in interest expense over the period. Although both achieved revenue growth of around 33% over the period, Microsoft converted this growth into profit more effectively than Novo.

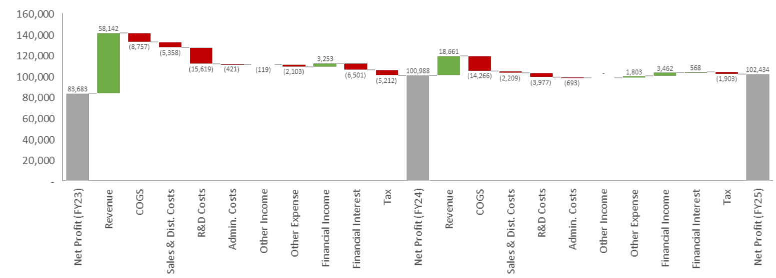
MSFT: Net Profit Bridge (FY23 – FY25)



MSFT

Over the period from FY23 to FY25, the main cost drive affecting Microsoft's net profit was COGS. However, the increase in COGS remained broadly in line with revenue growth over the period. As there were no major changes in operating expenses or financial expense, net profit growth remained relatively stable and consistent.

Novo: Net Profit Bridge (FY23 – FY25)



NOVO

From FY23 to FY24, Novo achieved strong revenue growth although this was partly offset by a substantial increase in R&D costs, which represented the largest cost movement. From FY24 to FY25, revenue growth slowed to around 6% while the increase in COGS became the largest negative driver of net profit growth.

4.2 Balance Sheet Review

Balance Sheet Key Line Items	MSFT USD in Millions FY (Ended in June 30) 2023	2024	2025	Change (USD) 2023 - 2025	Change (%) 2023 - 2025	NOVO DKK in Millions FY (Ended in December 31) 2023	2024	2025	Change (DKK) 2023 - 2025	Change (%) 2023 - 2025
Current Assets	184,257	159,734	191,131	6,874	3.7%	139,646	161,788	172,453	32,807	23.5%
Non-Current Assets	227,719	352,429	427,872	200,153	87.9%	174,840	303,842	370,449	195,609	111.9%
Total Assets	411,976	512,163	619,003	207,027	50.3%	314,486	465,630	542,902	228,416	72.6%
Current Liabilities	104,149	125,286	141,218	37,069	35.6%	169,655	217,614	215,661	46,006	27.1%
Long-Term Debt	41,990	42,688	40,152	(1,838)	-4.4%	20,528	89,674	118,941	98,413	479.4%
Total Equity	206,223	268,477	343,479	137,256	66.6%	106,561	143,486	194,047	87,486	82.1%

The increase in total assets of both companies from 2023 to 2025 was driven mainly by growth in non-current assets. For Microsoft, this was primarily due to Activision Blizzard acquisition and its continued cloud infrastructure spending. As Microsoft' long-term debt changed only marginally over the period, asset growth appears to have been supported mainly by equity growth through retained earnings.

In contrast, Novo's increase in total assets was driven primarily by acquisition of three former Catalent fill-finish sites in 2024, together with continued investment in property, plant and equipment. From FY23 to FY25, Novo long-term debt increased significantly, indicating that its asset growth was supported by both debt and equity financing. We will discuss more about solvency risk of Novo due to increased debt, in the later section below.

4.3 Ratio Analysis

4.3.2 Profitability Ratios

Profitability Ratios	MSFT FY (Ended in June 30) 2023	2024	2025	Change (%) 2023 - 2025	NOVO FY (Ended in December 31) 2023	2024	2025	Change (%) 2023 - 2025
GP (%)	68.9%	69.8%	68.8%	-0.1%	84.6%	84.7%	81.0%	-4.3%
EBIT (%)	41.8%	44.6%	45.6%	9.2%	44.2%	44.2%	41.3%	-6.5%
Net Profit (%)	34.1%	36.0%	36.1%	5.9%	36.0%	34.8%	33.1%	-8.0%
Sales-to-Assets	51.4%	47.9%	45.5%	-11.5%	73.9%	62.4%	56.9%	-22.9%
Return on Assets (ROA)	17.6%	17.2%	16.5%	-6.3%	26.6%	21.7%	18.9%	-29.1%

Novo maintained a much higher gross profit margin than Microsoft over FY23-FY25, at around 81% compared with Microsoft's 69%. However, Microsoft showed stronger operating performance, with EBIT margin improving from 41.8% to 45.6% while Novo's declined from 44.2% to 41.3%. This suggests better operating cost control at Microsoft.

Both companies remained highly profitable, with net profit margins above 30% throughout the period. Microsoft's net profit margin increased from 34.1% to 36.1% while Novo's fell from 36.0% to 33.1%, indicating a more favourable profitability trend of Microsoft.

However, sales-to-assets and ROA declined for both firms, suggesting weaker asset utilisation. The decline was steeper for Novo, implying that asset growth outpaced revenue growth more significantly.

Overall, both companies remained profitable and expanding, but Microsoft showed more stable profitability and better cost control, while Novo faced greater pressure on profit margins.

4.3.1 Liquidity and Solvency Ratios

Liquidity and Solvency Ratios	MSFT				NOVO			
	FY (Ended in June 30)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Current Ratio	1.77	1.27	1.35	-23.5%	0.82	0.74	0.80	-2.9%
Quick Ratio	1.75	1.27	1.35	-22.8%	0.64	0.56	0.57	-10.4%
Gearing Ratio	16.9%	13.7%	10.5%	-38.1%	16.2%	38.5%	38.0%	135.3%
Interest Cover	44.98	37.29	53.89	19.8%	121.39	17.47	18.83	-84.5%
Dividend Cover	3.65	4.05	4.23	15.7%	2.63	2.29	1.98	-24.9%

Current Assets Composition (%)	MSFT					NOVO				
	% of Total Current Assets					% of Total Current Assets				
	FY (Ended in June 30)			Change	Change (%)	FY (Ended in December 31)			Change	Change (%)
	2023	2024	2025	2023 - 2025	2023 - 2025	2023	2024	2025	2023 - 2025	2023 - 2025
A/R	26.4%	35.6%	36.6%	10.2%	38.4%	46.4%	44.5%	41.1%	-5.3%	-11.4%
Inventory	1.4%	0.8%	0.5%	-0.9%	-63.8%	22.8%	25.2%	28.8%	6.0%	26.3%
Cash & Equivalents	60.4%	47.3%	49.5%	-10.9%	-18.1%	21.6%	16.3%	15.6%	-6.0%	-27.8%
Others	11.8%	16.3%	13.5%	1.6%	13.7%	9.2%	14.0%	14.5%	5.3%	57.8%

Current and quick ratios of both companies declined between FY23 and FY25. However, Microsoft still maintained both ratios above 1.0 throughout the period, indicating relatively stronger short-term liquidity. For Novo, the current ratio changed only slightly, but the quick ratio fell from 0.64 in FY23 to 0.57 in FY25, suggesting a weaker liquidity position in the short-term.

It is also important to consider the different nature of the two businesses. For Microsoft, around 80% of current assets consisted of account receivables and cash and cash equivalents over the period. Cash alone account for about 50% of current assets in FY25, which supports Microsoft's strong liquidity position. In contrast, for Novo, cash represented only around 15% of current assets, while account receivables and inventory together made up about 70%. Given the decline in Novo's quick ratio, further analysis of inventory turnover will be discussed in the Efficiency Ratios section.

In terms of financial risk, due to the Novo increased in long-term debt in FY24, its gearing ratio is much higher than Microsoft's. In FY25, Microsoft's gearing ratio was 10.5%, compared with 38% for Novo. Nonetheless, both companies reported high interest cover ratios, suggesting that financial risk remains low overall.

Regarding dividend-paying capacity, Microsoft appears stronger, as its dividend cover remained at 4 times compared with 2 times for Novo. This is consistent with Microsoft's stronger profitability and earnings base.

4.3.3 Efficiency Ratios

Efficiency Ratios	MSFT				NOVO			
	FY (Ended in June 30)			Change (%)	FY (Ended in December 31)			Change (%)
	2023	2024	2025	2023 - 2025	2023	2024	2025	2023 - 2025
Inventory Turnover	26.3	59.5	93.6	255.4%	1.1	1.1	1.2	5.4%
Inventory Days	14	6	4	-71.9%	325	335	308	-5.1%
Receivable Days	84	85	91	8.0%	102	90	84	-17.8%
Payable Days	100	108	115	14.9%	261	141	123	-53.1%
Cash Conversion Cycle	-3	-17	-21	708.9%	165	285	269	63.0%

The main difference in efficiency is inventory days. Due to the different business models, Microsoft carries minimal inventory, so its inventory days were very low, falling from 14 days in FY23 to 4 days in FY25. In contrast, Novo's inventory days remained above 300 days, although they improved slightly over the period. This largely explains the gap in cash conversion cycle where Microsoft recorded negative cash conversion days, indicating that it collects cash before paying suppliers, while Novo's cycle remained positive mainly because inventory takes much longer to convert into sales.

Novo's payable days also fell sharply from 261 to 123 days. This means the company paid suppliers faster, which is not favourable, as it reduces supplier financing and may increase working capital pressure.

4.3.4 Investment Ratios

Investment Ratios	MSFT FY (Ended in June 30) 2023	2024	2025	MSFT Change (%) 2023 - 2025	NOVO FY (Ended in December 31) 2023	2024	2025	NOVO Change (%) 2023 - 2025
EPS	9.72	11.86	13.70	40.9%	18.67	22.67	23.06	23.5%
DPS	2.79	3.08	3.40	21.9%	9.40	11.40	11.70	24.5%
Dividend Payout Ratio	28.7%	26.0%	24.8%	-13.5%	50.2%	50.2%	50.7%	1.0%
Return on Equity	35.1%	32.8%	29.6%	-15.5%	78.5%	70.4%	52.8%	-32.8%
Return on Capital Employed	28.8%	28.3%	26.9%	-6.5%	70.8%	51.7%	39.0%	-44.9%

Both companies recorded growth in EPS and DPS from FY23 to FY25. However, Microsoft's dividend payout ratio declined from 28.7 % to 24.8% while Novo's remained stable at around 50%, indicating that Novo distributes a larger share of earnings as dividends.

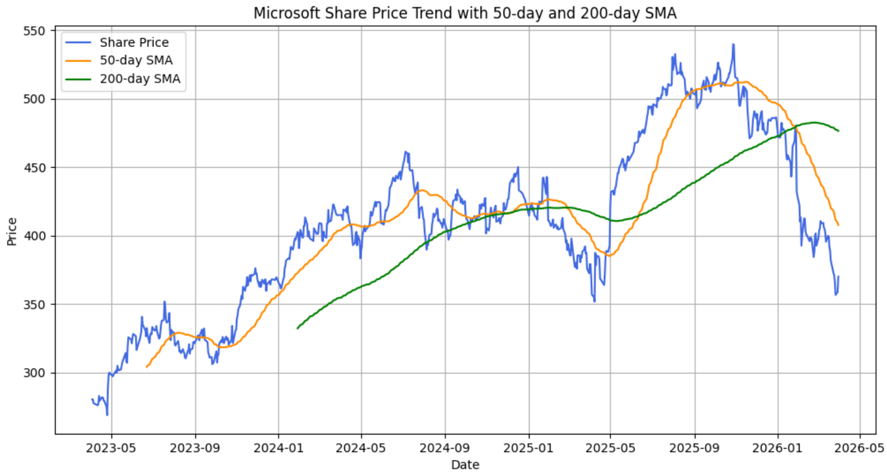
Both ROE and ROCE declined over the period although Novo remained higher than Microsoft on both measures. Novo's sharper decline suggests that capital expanded faster than profits, reducing returns despite continued earnings growth. Microsoft also experienced some decline, but the reduction was more moderate.

Overall, Novo still delivered stronger shareholder returns. Novo's 50% dividend payout ratio appears sustainable at present given its continued profitability though it leaves less earnings retention than Microsoft for reinvestment. However, increase in leverage and slower revenue growth of Novo might have impact on its 50% dividend payout ratio going forward.

5. Market and Share Price Analysis

5.1 Share Price Analysis

MSFT



Microsoft’s share price demonstrated significant growth from c. $300 in FY23 to c. $540 in FY25 (i.e., 80% increase). The share price trajectory was characterised by two distinct phases of accelerated growth. The first one is during 2023 and 2024, driven by investor enthusiasm surrounding Microsoft's investment in OpenAI and the announcement of Copilot AI integration across Microsoft 365. The second phase occurred from mid of 2025, supported by strong earnings reports that consistently exceeded analyst expectations, particularly in Azure cloud revenue. However, since the beginning of 2026, it has been showing declining trends.

Phase 1: (May to Dec 2023)

The company here just announced that they were investing $13 billion into Open AI and was adding AI tool called the ‘Copilot’ (Yahoo Finance, 2026). The investors got excited here thinking this can be a leading AI revolution and started buying more shares .

Phase 2: 9/2023 (Pull back period)

As the stock was rising the entire market panicked, as a whole the US share market started to sell off hard. This was the because for the first time the US central Bank Government called the Federal Reserve raised the interest rates to the highest levels in the history of last 22 yrs Here many investors pulled their money stock out of stocks and put it in into safer government bonds This tells here, that it was actually a buying opportunity (Investopedia, 2023).

Phase 3: The Big Bull Run, there was a surge for about 44% (Morningstar, 2024)

The inflation cooled down, the Open AI CEO, Sam Altman was fired by his own board of directors and then Microsoft offered him the job (Reuters, 2023).

Phase 4: The crash (November 2024- 2025)

Microsoft announced that it was spending $37.5 billion on AI infrastructure making investors feel nervous that are they spending too much, (Yahoo Finance, 2026). And the most importantly, the import tariffs imposed by Trump shook the whole market and the whole stock market fell (Yahoo Finance, 2026) (This was the death cross - where the orange line fell below the green one)

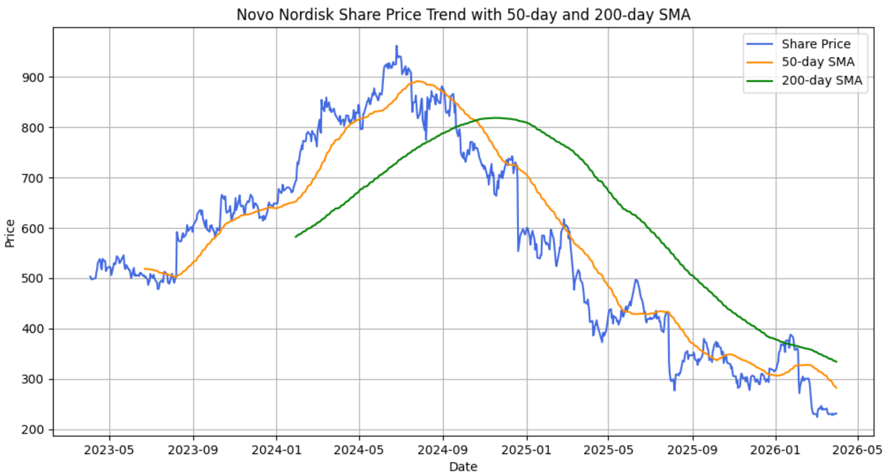
Phase 5: (May 2025):

They released the quarterly earnings results, Copilot subscriptions were going faster, and Azure growth came back stronger (Reuters, 2025). Here the stock jumped to 7.6% in one day. The second Golden cross formed here .

Phase 6:

This was the worst slide since 2009, here the prices are both below the 2 SMA, the threatening of Iran that they would attack the Big Tech US companies (MarketWatch, 2026) and also the investors were worried the cash was being burned on AI without enough return (Yahoo Finance, 2026).

Novo



Novo's share price increased since 2023 and peaked at around 2024 July around DKK 900+. Ever since, it has been declining until 2026 Mar, as a result, its 50-day MA line is below 200-day MA.

Phase 1: (May 2023)

The stock elevated here around 500-520 in May 2023, this was because the drug called Ozempic had exploded with celebrities and influencers talking about it as a cheat code to weight loss injections (CNBC, 2023) The sales were 35% and the profits were up to 55% (Yahoo Finance, 2026).

Phase 2: (Mid- Late 2023)

The price rose steadily here and touched the golden cross in the mid of 2023 and dipped in around September. The reason here is the same as Microsoft. The Federal Reserve's high interest rates caused the investors to pull their money out (Investopedia, 2023).

But unlike Microsoft, the stock bounced back quickly because the underlying drug business couldn't be ignored (CNBC, 2023).

Phase 3: (08/2023 - 06/2024)

This happened because of the explosive demand of the weight loss drug that is the Wegovy Demand, the revenue surged here beyond all the predictable forecasts which led to a global shortage and people were on the waiting list (Euronews, 2025), this demand supply phenomenon drove up the excitement of investors to put in their money. At that time there was no real competition present in the market, and the company rose to become Europe's No 1 company (Reddit, 2025).

Phase 4 (July 2024)

Here Eli Lilly launched Zepbound and Mounjaro which were the direct competitors to the company and were clinically, better for weight loss. (Reddit, 2025) To the disappointment of CagriSema, trail results showed less weight loss than The Wall Street expected. And here the stock dropped 20% in a single day (Fierce Biotech, 2024).

Phase 5: (Late 2024 - Early 2025)

The steep fall here was because Lilly's drugs were outselling Wegovy and growing faster (Morningstar, 2025).

The market came up with the cheap copycat version of the active ingredient of the Wegovy, which overtook the US market in the fraction of the price. The Trump administration drug policies made it harder to charge premium prices in the US market (Kavout, 2026).

Phase 6: The continued Decline

The stock price has been declining ever since and now reaching up to 240 which is the lowest level in years, due to the results of the competitive drug present in the market and failure of the next drug that is the CagriSema and it has been low ever since (New York Times, 2026).

5.2 Future Prospects

MSFT	Novo
Microsoft is changing the way it uses intelligence. They want to make it more advanced. This new kind of intelligence is called "Agentic AI". It will help computers work on their own and become a big part of how companies work. This will happen with the M365 E7 tier. To make this happen, Microsoft is investing a lot in its systems. They are also going back to using energy to power their data centres. Microsoft's Azure is doing well. It is growing by the digits. The company has a lot of work lined up worth about $625 billion. They want to make intelligence a basic part of the global economy. They do not just want it to be something you talk to, something that works on its own and helps everyone. Microsoft is working hard to make artificial intelligence to be a big part of our lives, but we recommend observing the current situation of US, Isarel and Iran war.	According to Morningstar, one of the main reasons of the fall of Novo stock price is due to the strong competition of Eli Lily and other cheap products in the market. Novo could have a strong position in the new oral market for GLP-1 in obesity according to the Morningstar analyst. Current low stock price of Nov o might be under-valued according to Morningstar. A key decision from the FDA on CagriSema, a treatment for obesity is coming up. This could be a moment for the company's growth. Novo Nordisk wants to be more than a diabetes expert. They want to be a leader in metabolic health helping with heart and kidney diseases too. They are working hard to stay ahead in the market for a time. Novo Nordisk is really focused on GLP-1 treatments and Novo Nordisk thinks these treatments are very important.

5.3 Industry and Sector Analysis

MSFT	Novo
Microsoft operates within the technology sector, which demonstrated strong overall performance in 2023 and 2024, largely driven by the AI investment cycle. The cloud computing market, in which Microsoft holds a leading position through Azure, is projected by industry analysts to continue growing at double-digit rates through 2030, driven by enterprise digital transformation and AI workload adoption.	Novo Nordisk operates within the pharmaceutical and healthcare sector. The GLP-1 drug market, which Novo Nordisk currently dominates, is projected to become one of the largest pharmaceutical categories globally. However, the sector also faces inherent risks including pricing pressures from government healthcare systems, patent expiry challenges, and competition from emerging rivals developing competing obesity and diabetes treatments.

6. Conclusion and Investment Recommendation

Following a comprehensive analysis of Microsoft Corporation and Novo Nordisk A/S, encompassing financial statement analysis, ratio analysis, AI-verified calculations, share price performance, technical trend analysis, and media and market research, Platinum Consultants plc provides the following investment recommendation to the Executive Board of Directors of Wood's plc.

Microsoft is a financially stable company with strong cash flows, profitability and growing asset base. It has growth opportunities due to its investment in AI.

Novo Nordisk has strong fundamentals although its share price is falling due to the strong competition in the market and cheap copies of its products. It is worth to note that Novo's R&D expense increased by 60% from FY23 to FY25. It means there might be growth opportunities if the research shows any sign of success.

In terms of risk, clearly, Novo can be considered relatively higher risk than Microsoft, but it comes with relatively higher returns than Microsoft. However, investing everything in Novo is not recommended. Investing in Microsoft only is possible, but return will be relatively lower.

Hence, Platinum Consultants plc would like to advise investing in a mix of Microsoft and Novo, putting a higher amount of investment in Microsoft while investing a lower amount (e.g., 20%, 30%) in Novo. This portfolio will have lower risk than investing in only one company due to the low correlation coefficient (i.e., 0.08 as per the calculation in Python), while it will give growth exposure to Novo share price.

7. References

Microsoft (2025) ‘Microsoft 2025 Annual Report’. Available at: https://www.microsoft.com/investor/reports/ar25/index.html (Accessed: 21 March, 2026).

Microsoft (2024) ‘Microsoft 2024 Annual Report’. Available at: https://www.microsoft.com/investor/reports/ar24/index.html (Accessed: 21 March, 2026).

Microsoft (2023) ‘Microsoft 2023 Annual Report’. Available at: https://www.microsoft.com/investor/reports/ar23/index.html (Accessed: 21 March, 2026).

Novo Nordisk (no date) ‘Annual Integrated Reporting Methodology’. Available at: https://www.novonordisk.com/sustainable-business/esg-portal/integrated-reporting.html (Accessed: 17 March, 2026).

Yahoo Finance (2026) ‘Microsoft Corporation (MSFT) Stock Price’. Available at: https://finance.yahoo.com/quote/MSFT/ (Accessed: 25 March, 2026)

Yahoo Finance (2026) ‘Novo Nordisk A/S (NVO) Stock Price’. Available at: https://finance.yahoo.com/quote/NVO/ (Accessed: 26 March 2026).

Bloomberg (2023) ‘Microsoft investment in OpenAI and launch of Copilot AI tools’. Available at: https://www.bloomberg.com/technology (Accessed: 28 March 2026).

CNBC (2023) ‘Sam Altman Fired as OpenAI CEO; Microsoft moves to hire him’. Available at: https://www.cnbc.com/technology (Accessed: 1 April 2026).

CNBC (2024) ‘Microsoft Announces $37.5 billion AI infrastructure investment’. Available at: https://www.cnbc.com/technology (Accessed: 1 April 2026).

CNBC (2025) 'Microsoft Quarterly Earnings Beat: Azure Growth and Copilot Subscriptions Surge'. Available at: https://www.cnbc.com/markets (Accessed: 3 April 2026).

Eli Lilly and Company (2024) ‘Zepbound and Mounjaro Clinical Trial Results and Market Launch’. Eli Lilly. Available at: https://www.lilly.com/news (Accessed: 3 April 2026).

Financial Times (2023) ‘Novo Nordisk becomes Europe's most valuable company on Wegovy demand’. Available at: https://www.ft.com (Accessed: 2 April 2026).

Financial Times (2024) ‘Novo Nordisk CagriSema trial results disappoint Wall Street’. Available at: https://www.ft.com (Accessed: 2 April 2026).

Financial Times (2025) ‘Novo Nordisk stock falls to multi-year low amid Eli Lilly competition and copycat drugs’. Available at: https://www.ft.com (Accessed: 2 April 2026).

Investopedia (2023) ‘Golden Cross and Death Cross: Definition, signals and technical analysis’. Available at: https://www.investopedia.com/terms/g/goldencross.asp (Accessed: 1 April 2026).

Investopedia (2023) ‘Simple Moving Average (SMA): Definition and how it is used in technical analysis’. Available at: https://www.investopedia.com/terms/s/sma.asp (Accessed: 2 April 2026).

MacroTrends (2026) ‘Microsoft Corporation (MSFT) stock price history 2023-2026'. Available at: https://www.macrotrends.net/stocks/charts/MSFT/microsoft/stock-price (Accessed: 4 April 2026).

MacroTrends (2026) ‘Novo Nordisk A/S (NVO) stock price history 2023-2026'. Available at: https://www.macrotrends.net/stocks/charts/NVO/novo-nordisk/stock-price (Accessed: 2 April 2026).

Microsoft Corporation (2025) ‘Microsoft quarterly earnings report Q3 2025 Investor Relations’. Redmond: Microsoft. Available at: https://www.microsoft.com/en-us/investor (Accessed: 1 April 2026).

Novo Nordisk A/S (2023) ‘Annual report 2023: Financial results and Ozempic/Wegovy performance’. Available at: https://www.novonordisk.com/investors (Accessed: 1 April 2026).

Novo Nordisk A/S (2026) ‘Full year financial results 2025 and 2026 outlook’, Available at: https://www.novonordisk.com/investors (Accessed: 4 April 2026).

Reuters (2023) ‘Ozempic demand: Novo Nordisk reports 35% sales growth and 55% profit rise’. Available at: https://www.reuters.com/business (Accessed: 2 April 2026).

Reuters (2024) ‘Trump administration tariff policies shake US stock markets’. Available at: https://www.reuters.com/markets (Accessed: 3 April 2026).

Reuters (2025) ‘Compounded GLP-1 drugs flood US market at lower prices, threatening Novo Nordisk margins’. Available at: https://www.reuters.com/business/healthcare (Accessed: 2 April 2026).

Reuters (2026) ‘Microsoft stock falls to worst levels since 2009 amid AI ROI concerns and geopolitical tensions’. Available at: https://www.reuters.com/markets (Accessed: 3 April 2026).

The Wall Street Journal (2024) ‘Novo Nordisk shares drop 20% as CagriSema trial results miss expectations’. Available at: https://www.wsj.com (Accessed: 2 April 2026).

Englundh, J. (2025) ‘Is Novo Nordisk Stock a Buy After its Share Price Collapse?’, *Morning Star*. Available at: https://www.morningstar.com/stocks/is-novo-nordisk-stock-buy-after-its-share-price-collapse. (Accessed: 4 April 2026)

Appendix A — Full AI-Generated Analysis Output

The following pages contain the complete, unedited output of the AI software package (Claude by Anthropic) used to generate the financial ratio analysis for both Microsoft Corporation and Novo Nordisk A/S, as required by the assignment brief. This output is presented in full prose format and not in bullet points, in accordance with the instructions provided by Wood's plc.

Important: Screenshots of the AI interface showing the complete interaction must be inserted below as images before submission. Ensure all AI-generated content is fully visible in the screenshots and that the screenshots are clearly labelled.

I will give you 3 annual reports for each company (Microsoft and Novo Nordisk). And I want you to do the financial statement analysis, including the ratios analysis. Your analysis must include explanation for the ratios movements.
Here are the ratios I want you to calculate.
Gross Profit Margin, Net Profit Margin, Sales-to-Assets, Return on Assets (ROA)
Current Ratio, Quick Ratio, Gearing Ratio, Interest Cover and Dividend Cover
Inventory Turnover, Inventory Days, Account Receivables Days, Account Payable Days
EPS, Return on Equity, Return on Capital Employed

ChatGPT

Send the six annual reports here and I'll work from those.

Please upload:

- Microsoft annual reports for 3 years
- Novo Nordisk annual reports for 3 years

I'll then:

- extract the required statement figures,
- calculate each ratio consistently for both companies,
- explain the year-on-year movements behind each ratio,
- and present it in a clean company-by-company analysis.

For a fair comparison, I'll use the same ratio definitions across both firms and note any accounting/classification differences where they affect interpretation.

Upload the six annual reports and I'll do it.

Needed:

\+ Send a message or @ChatGPT

Needed:

- Microsoft: 3 annual reports
- Novo Nordisk: 3 annual reports

I'll produce:

- the ratio calculations for all years,
- the financial statement analysis,
- and clear explanations for why each ratio moved.

I'll keep the methodology consistent across both companies and flag any reporting differences that affect comparability.

msft - annual report 2024-2025pdf.pdf
PDF

msft 2023-24.pdf
PDF

Here you go. Disclose the ratio formula you used.

Send a message or @ChatGPT

Yes — below are the **formulas used**, followed by the **ratio analysis** for Microsoft and Novo Nordisk based on the uploaded annual reports. I used the **consolidated statements** for both companies and applied the **same formulas** to keep the comparison consistent. The core statement figures come from Microsoft's FY2023–FY2025 10-Ks and Novo Nordisk's 2023–2025 annual reports. msft 2023-24 msft - annual report 2024-2025p... novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

A comparability note first: Microsoft reports on a **30 June** year-end, while Novo Nordisk reports on a **31 December** year-end, so the cross-company comparison is directionally useful but not on an identical calendar basis. Also, Novo Nordisk's 2025 report re-presented some 2024 balance-sheet items, so I used the 2025 comparative presentation for 2024 where available to preserve consistency. msft - annual report 2024-2025p... novo-nordisk-annual-report-2025

Ratio formulas used

Profitability / efficiency

- **Gross Profit Margin** = Gross profit ÷ Revenue
- **Net Profit Margin** = Net profit ÷ Revenue
- **Sales-to-Assets** = Revenue ÷ Average total assets
- **ROA** = Net profit ÷ Average total assets
- **ROE** = Net profit ÷ Average equity
- **ROCE** = Operating profit (EBIT) ÷ Average capital employed
- **Capital employed** = Total assets − Current liabilities

Liquidity / solvency

- **Current Ratio** = Current assets ÷ Current liabilities
- **Quick Ratio** = (Current assets − Inventories) ÷ Current liabilities
- **Gearing Ratio** = Total debt ÷ Total equity
- **Interest Cover** = Operating profit ÷ Interest expense
  - For Microsoft, I used the disclosed **interest expense** line. msft - annual report 2024-2025p...
  - For Novo Nordisk, I used **financial expenses** as the closest disclosed financing cost measure in the annual report. novo-nordisk-annual-report-2024
- **Dividend Cover** = Diluted EPS ÷ Dividend per share

Working capital

- **Inventory Turnover** = Cost of sales (or cost of revenue) ÷ Average inventory
- **Inventory Days** = Average inventory ÷ Cost of sales × 365
- **Accounts Receivable Days** = Average trade receivables ÷ Revenue × 365
- **Accounts Payable Days** = Average trade payables ÷ Cost of sales × 365

Per-share

- **EPS** = Diluted EPS as reported

A.1 Microsoft Corporation — AI Output Screenshots

Microsoft ratio analysis

Microsoft's revenue, gross margin, operating income and net income all increased strongly from 2023 to 2025, driven mainly by Azure, Microsoft 365 Commercial cloud and, later, Gaming and search/news advertising. However, 2025 also shows the cost of scaling AI infrastructure more clearly, especially in margin pressure and capital intensity. msft 2023-24 msft - annual report 2024-2025p...

Microsoft ratios

Ratio	2023	2024	2025
Gross Profit Margin	68.92%	69.76%	68.82%
Net Profit Margin	34.15%	35.96%	36.15%
Sales-to-Assets	0.55x	0.53x	0.50x
ROA	18.63%	19.07%	18.00%
Current Ratio	1.77x	1.27x	1.35x
Quick Ratio	1.74x	1.26x	1.34x
Gearing Ratio	0.23x	0.17x	0.13x
Interest Cover	44.98x	37.29x	53.89x
Dividend Cover	3.56x	3.93x	4.11x
Inventory Turnover	21.04x	39.51x	80.55x
Inventory Days	17.4	9.2	4.5
A/R Days	80.1	78.4	82.1
A/P Days	102.4	98.9	103.3
Diluted EPS	9.68	11.80	13.64
ROE	38.82%	37.13%	33.28%
ROCE	30.65%	31.50%	29.73%

Microsoft: explanation of movements

Gross profit margin improved from 2023 to 2024, then eased in 2025. The 2024 improvement reflects broad revenue growth and operating leverage, while Microsoft itself notes that gross margin percentage in 2025 declined slightly because Intelligent Cloud margins were pressured by the cost of scaling AI infrastructure. msft 2023-24 msft - annual report 2024-2025p...

Net profit margin increased across the three years, from 34.2% to 36.2%. Even though gross margin softened in 2025, the company still converted more revenue into bottom-line profit because revenue growth remained strong and operating expense growth was slower than revenue growth. 2025 also benefited from lower interest expense than 2024. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Sales-to-assets, **ROA**, and **ROCE** all weakened slightly by 2025. This is mainly a capital-base story. Microsoft's total assets and property, plant and equipment expanded sharply, especially in 2024 and 2025, as it invested heavily in cloud and AI infrastructure. Revenue and profits still grew, but not as fast as the asset base, so asset productivity ratios softened. msft 2023-24 msft - annual report 2024-2025p...

Current ratio and **quick ratio** dropped sharply in 2024, then recovered modestly in 2025. The 2024 deterioration was driven by a fall in cash and short-term investments and a rise in current liabilities, including short-term debt and higher payables/unearned revenue. The slight rebound in 2025 came from rebuilding cash and short-term investments and eliminating short-term debt. msft 2023-24 msft - annual report 2024-2025p...

Gearing ratio declined steadily from 0.23x to 0.13x. That indicates a stronger equity-funded balance sheet. Total equity rose materially each year through retained earnings, while total debt trended down. Microsoft remained lightly geared throughout the period. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Interest cover remained extremely strong in all years. It dipped in 2024 because operating profit rose but interest expense was still relatively elevated. It then improved sharply in 2025 because operating profit increased again while interest expense fell; Microsoft explicitly attributes lower 2025 interest expense mainly to maturities of commercial paper and higher capitalization of debt interest expense. msft 2023-24 msft - annual report 2024-2025p... msft - annual report 2024-2025p...

Dividend cover improved each year, from 3.56x to 4.11x. EPS grew faster than the dividend per share, so Microsoft's dividend became more comfortably covered by earnings. That points to strong distribution capacity. msft 2023-24 msft - annual report 2024-2025p...

Inventory turnover rose sharply and **inventory days** fell from 17.4 to 4.5 days. Mechanically, this comes from inventory shrinking from $2.5bn in 2023 to less than $1bn in 2025 while cost of revenue kept rising. In economic terms, this ratio is less important for Microsoft than for a manufacturing-heavy company because Microsoft is primarily a software, services and cloud business. msft 2023-24 msft - annual report 2024-2025p...

Accounts receivable days were broadly stable around 78–82 days. That suggests receivables grew broadly in line with revenue, with only a mild increase in 2025. **Accounts payable days** also stayed relatively stable around 99–103 days, implying no major structural shift in payment timing. msft 2023-24 msft - annual report 2024-2025p...

EPS rose strongly each year, from 9.68 to 13.64, in line with higher net income and some support from ongoing share repurchases. msft 2023-24 msft - annual report 2024-2025p...

ROE fell from 38.8% in 2023 to 33.3% in 2025 despite rising profits. The reason is that equity rose even faster than net income, especially from retained earnings. So the decline does not signal weaker profitability in absolute terms; it reflects a much larger equity base. **ROCE** shows a similar pattern: still very strong, but slightly diluted by rapid capital expansion. msft 2023-24 msft - annual report 2024-2025p...

Microsoft overall view

Microsoft's ratios show a business that remained highly profitable, liquid, and conservatively financed. The main change over the period is not deterioration in core quality, but a shift toward heavier capital intensity as the company scaled AI and cloud infrastructure. Profitability stayed very strong, but asset efficiency ratios softened because the balance sheet expanded faster than revenue. msft 2023-24 msft - annual report 2024-2025p...

Overall Judgement – Microsoft

Microsoft remains a **very strong, highly profitable, and financially secure company**. Across the ratio analysis, the overall picture is positive:

- **Profitability:** Strong overall, with net profit margin improving and only slight pressure on gross margin in 2025.
- **Efficiency:** Stable, with working-capital ratios broadly controlled and no major operational weakness.
- **Liquidity & Solvency:** Very strong, supported by low gearing, high interest cover, and solid dividend capacity.
- **Investment ratios:** EPS is rising strongly, while ROE and ROCE have eased slightly because the capital base expanded faster than earnings.

👉 **Final Overall Judgement:**
Microsoft's performance remains **excellent overall**. The small declines in some return ratios reflect **heavy investment in cloud and AI infrastructure**, so this suggests **strategic expansion and temporary dilution of returns, not deterioration in underlying performance**.

A.2 Novo Nordisk A/S — AI Output Screenshots

Novo Nordisk ratio analysis

Novo Nordisk delivered exceptional growth in 2023 and 2024, driven primarily by obesity and diabetes products, then hit a more complex year in 2025, with margin pressure, restructuring costs and a much larger capital base following acquisitions and capacity expansion. Even so, profitability remained very strong. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Novo Nordisk ratios

Ratio	2023	2024	2025
Gross Profit Margin	84.60%	84.67%	80.98%
Net Profit Margin	36.03%	34.78%	33.14%
Sales-to-Assets	0.84x	0.74x	0.61x
ROA	30.12%	25.89%	20.31%
Current Ratio	0.82x	0.74x	0.80x
Quick Ratio	0.64x	0.55x	0.57x
Gearing Ratio	0.25x	0.72x	0.67x
Interest Cover	121.39x	17.47x	18.83x
Dividend Cover	1.98x	1.99x	1.97x
Inventory Turnover	1.27x	1.22x	1.30x
Inventory Days	286.7	300.2	280.4
A/R Days	90.8	86.3	84.5
A/P Days	209.8	175.1	145.3
Diluted EPS	18.62	22.63	23.03
ROE	88.07%	80.78%	60.70%
ROCE	77.37%	65.34%	44.38%

Novo Nordisk: explanation of movements

Gross profit margin was exceptionally high in 2023 and 2024 at around 84.6%–84.7%, then dropped to 81.0% in 2025. In 2024, Novo explicitly says the slightly improved margin reflected a favorable product mix from higher GLP-1 sales and positive US gross-to-net price adjustments, partly offset by ongoing capacity expansion costs. In 2025, the margin decline reflects materially higher cost of goods sold relative to sales, consistent with a more demanding cost base after large expansion and integration activity.
novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Net profit margin declined from 36.0% in 2023 to 33.1% in 2025. The 2024 decline occurred even though sales and operating profit grew strongly, because financial expenses surged after the increase in borrowings. In 2025, margin weakened further because operating profit was hit by one-off restructuring costs of around DKK 8 billion and effects related to the former Catalent sites, even though net financial items improved.
novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Sales-to-assets, **ROA**, and **ROCE** all declined significantly over the three years. The key driver is the rapid expansion in the asset base: inventories, property, plant and equipment, intangibles/goodwill, and total assets all rose sharply, especially in 2024 and 2025. This came from heavy capacity expansion and the Catalent-related acquisition. Revenue and profit still increased, but not fast enough to offset the denominator effect. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Current ratio and **quick ratio** stayed below 1 throughout. That does not automatically imply distress. Novo Nordisk operates with a liability-heavy working-capital structure, including large provisions, sales deductions/product returns, and other operating liabilities, while remaining highly profitable and cash-generative. Still, the fall in 2024 shows liquidity became tighter on a balance-sheet basis after the debt-funded expansion and acquisition activity. The modest recovery in 2025 came from higher cash and current assets. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Gearing ratio jumped from 0.25x in 2023 to 0.72x in 2024, then eased slightly to 0.67x in 2025. This is one of the clearest changes in Novo's financial structure. Borrowings rose sharply in 2024 to fund the Catalent transaction and broader capacity expansion. Equity also increased strongly, which prevented gearing from rising further in 2025. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Interest cover remained strong, but the drop from 121x in 2023 to about 17–19x in 2024–2025 is still substantial. The reason is straightforward: financial expenses were very low in 2023, then rose sharply after the additional borrowing. In 2025, cover improved slightly because financial expenses fell and net financial items turned favorable, driven mainly by gains from hedging the US dollar, partly offset by financing costs related to Catalent. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Dividend cover stayed almost unchanged at about 2.0x in all three years. That is consistent with Novo Nordisk's stated dividend policy, which targets roughly a 50% payout ratio. So this stability is deliberate rather than accidental. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

Inventory turnover remained low and **inventory days** very high relative to Microsoft, which is expected in pharmaceuticals. Novo holds significant inventory because of manufacturing lead times, regulatory requirements, supply reliability needs and the physical nature of its products. Inventory days worsened in 2024 as inventories expanded alongside capacity investment, then improved modestly in 2025 as cost of sales accelerated. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2024

Accounts receivable days improved gradually from 90.8 to 84.5 days, suggesting receivables were managed more efficiently relative to sales growth. **Accounts payable days** fell materially from 209.8 to 145.3 days, meaning payables did not keep pace with the growth in cost of sales. Part of that reflects the much larger operating scale and the 2025 re-presentation of some balance-sheet items. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

EPS increased strongly from 18.62 in 2023 to 23.03 in 2025, though growth was much slower in 2025 than in 2024. That matches the broader earnings pattern: explosive growth first, then consolidation. novo-nordisk-annual-report-2023 novo-nordisk-annual-report-2025

ROE and **ROCE** stayed extremely high but fell meaningfully by 2025. This does not mean Novo became weak; rather, it means the company built a much larger capital base very quickly. The acquisition of three former Catalent manufacturing sites and heavy investment in supply-chain capacity expanded both assets and capital employed faster than profit. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Novo Nordisk overall view

Novo Nordisk's ratios show a company that remained highly profitable but became much more capital-intensive and more leveraged from 2024 onward. The big strategic story is transition: from extraordinary GLP-1-led growth into a phase where the company is funding capacity, integrating acquisitions, and absorbing restructuring and competitive pressure. Profitability is still excellent, but returns on capital are normalizing from exceptionally high levels. novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Overall Judgement – Novo Nordisk

Novo Nordisk remains a **highly profitable and fundamentally strong company**, but across all ratio categories there is a clear and consistent trend: performance is being **diluted by rapid expansion**.

- **Profitability:** Still very high, but margins and returns (ROE, ROCE, ROA) are declining due to rising costs and a larger capital base.
- **Efficiency:** Mixed — operational metrics reflect **scaling and industry characteristics**, not inefficiency.
- **Liquidity & Solvency:** Financial position remains **stable**, though liquidity is tight and leverage has increased due to debt-funded growth.
- **Investment ratios:** Returns are **normalising** as capital (assets/equity) grows faster than earnings.

👉 **Final Overall Judgement:**
Novo Nordisk is transitioning from an **exceptional high-growth, high-return phase to a capital-intensive expansion phase**, where performance remains strong but **returns are normalising due to heavy investment rather than deterioration**.

A.3 Short Comparison Done by AI

Short comparison

Microsoft and Novo Nordisk are both highly profitable, but in different ways. Microsoft has lower gross margins than Novo, yet stronger balance-sheet liquidity and much lower gearing. Novo has much higher operating economics at the gross level, but a more liability-heavy working-capital structure and a sharper increase in leverage after 2023. Microsoft's recent pattern is **AI-driven capital expansion with stable financial strength**; Novo's is **manufacturing/acquisition-driven expansion with profitability still high but returns moderating**. msft 2023-24 msft - annual report 2024-2025p... novo-nordisk-annual-report-2024 novo-nordisk-annual-report-2025

Brief Comparison & Final Judgement – Microsoft vs Novo Nordisk

- **Profitability:**
  Novo Nordisk has **higher margins**, but Microsoft shows **more stable and improving net profitability**.
- **Efficiency:**
  Microsoft is **more consistent and stable**, while Novo's efficiency reflects **inventory-heavy pharmaceutical operations and expansion effects**.
- **Liquidity & Solvency:**
  Microsoft is **financially stronger** (higher liquidity, lower gearing). Novo has **tighter liquidity and higher leverage** due to expansion.
- **Investment Ratios:**
  Both show **strong EPS growth**, but returns (ROE/ROCE) are declining in both — **more sharply in Novo** due to rapid capital expansion.

👉 **Final Judgement (Brief):**
Microsoft is **more financially stable and balanced overall**, while Novo Nordisk is **more profitable but currently in a heavier investment phase**, leading to **greater pressure on returns and financial structure**.

Appendix B — Manual Ratio Calculation Spreadsheet

The manually completed ratio calculation spreadsheet for both Microsoft Corporation and Novo Nordisk A/S is submitted alongside this Word document via Moodle. The spreadsheet contains all input data extracted from the annual reports, all ratio calculations, year-on-year change analysis, and interpretation for both companies covering FY2023, FY2024 and FY2025.

Appendix C — Python Code

The team has used AI to generate the Python code to produce the share price charts, monthly standard deviation and returns charts. For the accuracy and quality, the team has reviewed the AI-generated Python code. Please refer to the following link for the Python code.

https://colab.research.google.com/drive/1KiNH87pLpaKSoruidWXb3ALA7bS7Vx3Z?usp=sharing