

## Novo Nordisk

## FY23 and FY24 guide preview. Supply main debate. Amycretin PI/II key focus

Reiterate Rating: BUY | PO: 875.00 DKK | Price: 728.90 DKK

## FY23 EBIT bottom-end guide; Delta inventory stock

Our FY23 forecasts are at the bottom-end of guide, with key delta extent of inventory stock for Ozempic and Wegovy, on which we have limited visibility (we assume DKK2bn for Ozempic and limited for Wegovy). We forecast FY23 group sales of DKK226.4bn, +28% YoY (vs reported guide 28-34%), EBIT of DKK100.5bn, +34% YoY (vs reported guide 33-39%), c1% below cons. Key factors for 4Q include; 1) Strong Ozempic rebound as supply resumed, with 4Q Trx growth of 67%. A key focus remains extent of inventory build as supply resumed (we assume cDKK2bn); 2) Wegovy sales of cDKK7.3bn (3Q was DKK9.6bn), down sequentially on flattish TRx but gross-to-net reverting to 9M average (with 3Q higher). We do not include any material inventory build. Key focus remains supply infection for FY24 (below); 3) Rybelsus DKK4.8bn; 4) Norditropin supply impact to continue; 5) US insulin trending back to c25% declines, having been much worse in 2Q (-37%); 6) EBIT margin 41.1%, lowest of the year on expected cost phasing (R&D/SG&A).

## FY24 guide prob conservative, cons top end; Supply key

We expect initial FY24 sales/EBIT guide 20-26% reported growth (with EBIT ahead of sales, and including 2-3% Fx headwind), with cons at top end of range (24%/26% reported sales and EBIT). However, our FY24 forecasts remain 7% / 9% ahead of cons at 35% sales growth and 38% EBIT growth. Key drivers in FY24: 1) Injectable GLP1 growth of 27% vs cons 20%; based on an analysis of prior Ozempic sequential growth resuming; 2) Margins of 45.6% vs VA cons 44.8%; 3) Wegovy DKK75bn vs cons DKK62bn. For FY24, our forecast assumes 5k additional TRx per week, with weekly TRx reaching c400k by ear-end. Key delta remains timing of supply inflection; 4) Potential for buyback greater than cons (FY23 / 24 buyback for BofA DKK30/50bn vs VA cons Dkk30/34bn). Supply remains the number one discussion topic, as main unknown delta to forecasts.

## Buy. EPS upgrade cycle; Cagrisema PIII 2H24. Amycretin

Novo share price outperformance in the last 18m has been driven by a Ozempic/Wegovy EPS upgrade cycle. We expect the earnings upgrades cycle to continue, with us 10% ahead of VA cons in 2024 (Ozempic, Wegovy, margins and buyback). Amycretin PI data expected with FY23 results is also important, with focus on possible progression to PIII for an oral agent with a CagriSema-like profile (important given LLY's orforglipron).

Estimates (Dec) (DKK)	2021A	2022A	2023E	2024E	2025E
EPS (Reported Diluted)	10.4	12.2	18.3	25.4	31.1
EPS Change (YoY)	15.2%	17.8%	49.4%	39.3%	22.2%
Dividend / Share	5.14	6.06	9.06	12.6	15.4
ADR EPS (Reported Diluted - US\$)	1.65	1.73	2.68	3.74	4.57
ADR Dividend / Share (US\$)	0.82	0.86	1.33	1.85	2.26
Valuation (Dec)					
P/E	70.3x	59.7x	39.9x	28.7x	23.5x
Dividend Yield	0.71%	0.83%	1.24%	1.73%	2.12%
EV / EBITDA*	49.9x	39.3x	29.8x	21.7x	18.0x
Free Cash Flow Yield*	1.45%	2.02%	2.21%	3.22%	3.85%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 7.

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## Equity

## Key Changes

(DKr)	Previous	Current
2023E EPS	18.23	18.26
2024E EPS	25.33	25.44
2025E EPS	30.95	31.08
2023E DPS	9.04	9.06

Sachin Jain, CFA &gt;&gt;

Research Analyst

MLI (UK)

s.jain@bofa.com

Graham Parry &gt;&gt;

Research Analyst

MLI (UK)

graham.parry@bofa.com

Joe Bowden &gt;&gt;

Research Analyst

MLI (UK)

jbowden@bofa.com

Charlie Haywood &gt;&gt;

Research Analyst

MLI (UK)

charlie.haywood@bofa.com

## Stock Data

Price (Common / ADR)	728.90 DKK / 107.63 USD
Price Objective	875.00 DKK / 125.20 USD
Date Established	6 Nov-2023 / 6 Nov-2023
Investment Opinion	B-1-7 / B-1-7
52-Week Range	448.25 DKK-742.20 DKK
Market Value (mn)	3,240,890 DKK
Shares Outstanding (mn)	4,446.3 / 4,446.3
Average Daily Value (mn)	278.09 USD
Free Float	73.3%
BofA Ticker / Exchange	NONOF / CPH
BofA Ticker / Exchange	NVO / NYS
Bloomberg / Reuters	NOVOB DC / NOVOb.CO
ROE (2023E)	85.3%
Net Dbt to Eqty (Dec-2022A)	-0.6%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

# iQprofile<sup>SM</sup> Novo Nordisk

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
<b>(DKr Millions)</b>					
Sales	140,800	176,954	226,375	304,907	368,970
EBITDA Adjusted	64,669	82,171	108,185	148,310	179,142
Depreciation & Amortization	(6,025)	(7,362)	(7,727)	(9,177)	(10,861)
EBIT Adjusted	58,644	74,809	100,458	139,133	168,281
Net Interest & Other Income	436	(5,747)	1,654	1,109	74.8
Tax Expense / Benefit	(11,323)	(13,537)	(20,422)	(28,048)	(33,671)
Net Income (Adjusted)	47,757	55,525	81,690	112,194	134,685
Average Fully Diluted Shares Outstanding	4,605	4,545	4,474	4,410	4,333

<b>Key Cash Flow Statement Data</b>					
Net Income (Reported)	47,757	55,525	81,690	112,194	134,685
Depreciation & Amortization	6,025	7,362	7,727	9,177	10,861
Change in Working Capital	(8,656)	(5,336)	(16,579)	(26,344)	(21,490)
Deferred Taxation Charge	0	0	0	0	0
Other CFO	9,874	21,336	26,264	41,734	34,045
<b>Cash Flow from Operations</b>	<b>55,000</b>	<b>78,887</b>	<b>99,102</b>	<b>136,761</b>	<b>158,100</b>
Capital Expenditure	(6,335)	(12,146)	(27,165)	(33,540)	(36,897)
(Acquisition) / Disposal of Investments	(18,283)	(7,075)	0	0	0
Other CFI	(6,987)	(5,697)	0	0	0
<b>Cash Flow from Investing</b>	<b>(31,605)</b>	<b>(24,918)</b>	<b>(27,165)</b>	<b>(33,540)</b>	<b>(36,897)</b>
Share Issue / (Repurchase)	(19,447)	(24,086)	(30,000)	(50,000)	(60,000)
Cost of Dividends Paid	(21,517)	(25,303)	(27,192)	(40,144)	(65,963)
Increase (decrease) debt	16,289	(861)	0	0	0
Other CFF	(227)	(1,785)	0	0	0
<b>Cash Flow from Financing</b>	<b>(24,902)</b>	<b>(52,035)</b>	<b>(57,192)</b>	<b>(90,144)</b>	<b>(125,963)</b>
<b>Total Cash Flow (CFO + CFI + CFF)</b>	<b>(1,507)</b>	<b>1,934</b>	<b>14,744</b>	<b>13,078</b>	<b>(4,760)</b>
FX and other changes to cash	5,593	5,192	0	0	0
Change in Cash	4,086	7,126	14,744	13,078	(4,760)
Change in Net Debt	12,203	(7,987)	(14,744)	(13,078)	4,760
Net Debt	7,470	(517)	(15,261)	(28,339)	(23,579)

<b>Key Balance Sheet Data</b>					
Property, Plant & Equipment	55,362	66,671	87,862	113,976	141,765
Goodwill	0	0	0	0	0
Other Intangibles	43,171	51,416	49,664	47,911	46,159
Other Non-Current Assets	10,380	14,976	14,976	14,976	14,976
Trade Receivables	40,643	50,560	64,681	87,119	105,423
Cash & Equivalents	19,175	26,301	41,045	54,123	49,363
Other Current Assets	25,777	31,333	40,084	53,989	65,333
Total Assets	194,508	241,257	298,311	372,095	423,020
Long-Term Debt	12,961	24,318	24,318	24,318	24,318
Other Non-Current Liabilities	11,285	12,513	12,513	12,513	12,513
Short-Term Debt	13,684	1,466	1,466	1,466	1,466
Other Current Liabilities	85,832	119,474	152,031	203,765	245,967
Total Liabilities	123,762	157,771	190,328	242,062	284,264
Total Equity	70,746	83,486	107,983	130,033	138,756
Total Equity & Liabilities	194,508	241,257	298,311	372,095	423,020

<b>Business Performance*</b>					
Return On Capital Employed	52.1%	52.4%	61.5%	71.8%	78.4%
Return On Equity	71.2%	72.0%	85.3%	94.3%	100%
Operating Margin	41.7%	42.3%	44.4%	45.6%	45.6%
Free Cash Flow (MM)	48,665	66,741	71,937	103,221	121,203

<b>Quality of Earnings*</b>					
Cash Realization Ratio	1.15x	1.42x	1.21x	1.22x	1.17x
Asset Replacement Ratio	1.28x	2.11x	4.55x	4.52x	4.05x
Tax Rate	19.2%	19.6%	20.0%	20.0%	20.0%
Net Debt/Equity	10.6%	-0.62%	-14.1%	-21.8%	-17.0%
Interest Cover	23.9x	12.5x	NM	NM	NM

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 7.

## Company Sector

Pharmaceuticals

## Company Description

Novo Nordisk is a Denmark-based world leader in insulin and diabetes care and also manufactures and markets a variety of other pharmaceutical products. Key products include Wegovy and Semaglutide (GLP-1) and long acting basal insulins.

## Investment Rationale

We have a Buy rating on Novo Nordisk given strong c11% 2025-28E sales CAGR driven by Wegovy launch layers on top of a solid diabetes franchise with strong GLP1 driven growth and mid-term pipeline options.

## Stock Data

Shares / ADR	1.00
Price to Book Value	29.9x

## Quarterly Earnings Estimates

	2022	2023
Q1	3.11A	4.39A
Q2	2.93A	4.31A
Q3	3.18A	5.01A
Q4	3.01A	4.49E

## Key Changes

(US\$)	Previous	Current
2024E EPS	3.72	3.74
2025E EPS	4.55	4.57

# Variance

## Exhibit 1: Novo-Nordisk FY23 Preview

Novo-Nordisk FY23 Preview

	Previous	BofAe		Consensus- Company	Previous	BofAe		Consensus	Difference v consensus	
DKKm	4Q22A	4Q23E	% Chg	4Q23E	2022A	2023E	% Chg	2023E	DKKm	% Chg
<b>Basal insulin franchise</b>	<b>3,902</b>	<b>3,113</b>	<b>-20</b>	<b>3,492</b>	<b>16,741</b>	<b>14,292</b>	<b>-15</b>	<b>14,564</b>	<b>-272</b>	<b>-2</b>
<b>Basal insulin franchise ex Xultophy</b>	<b>3,206</b>	<b>2,356</b>	<b>-27</b>	<b>2,696</b>	<b>13,932</b>	<b>11,102</b>	<b>-20</b>	<b>11,354</b>	<b>-252</b>	<b>-2</b>
Tresiba	2,247	1,737	-23	1,965	9,353	7,573	-19	7,940	-367	-5
Levemir	959	619	-35	731	4,579	3,529	-23	3,414	115	3
Xultophy (IDegLira)	696	757	9	796	2,809	3,190	14	3,210	-20	-1
<b>Premix insulin</b>	<b>2,343</b>	<b>2,390</b>	<b>2</b>	<b>2,500</b>		<b>9,841</b>				
Ryzodeg	730	860	18	1,002	2,889	3,681	27	3,895	-214	-5
Novo Mix	1,613	1,529	-5	1,498	7,673	6,159	-20	6,209	-49	-1
<b>Fast-acting insulin</b>	<b>4,471</b>	<b>3,874</b>	<b>-13</b>	<b>3,816</b>		<b>15,681</b>				
Faster acting insulin aspart	505	449	-11	495	2,003	1,988	-1	1,999	-11	-1
Novo Rapid	3,966	3,425	-14	3,321	15,460	13,693	-11	13,816	-123	-1
Human Insulin	1,970	1,846	-6	1,841	8,186	7,451	-9	7,602	-151	-2
<b>Total GLP1</b>	<b>24,352</b>	<b>33,548</b>	<b>38</b>	<b>30,633</b>		<b>118,919</b>				
Victoza	3,323	2,149	-35	1,972	12,322	9,027	-27	8,691	336	4
Ozempic	16,976	26,630	57	24,123	59,750	92,283	54	91,158	1,125	1
Rybelsus	4,053	4,770	18	4,539	11,299	17,610	56	17,967	-357	-2
Others Diabetes	713	694	-3	682	3,225	2,684	-17	2,742	-58	-2
<b>Diabetes total</b>	<b>37,751</b>	<b>45,512</b>	<b>21</b>	<b>42,965</b>	<b>139,548</b>	<b>168,915</b>	<b>21</b>	<b>168,657</b>	<b>259</b>	<b>0</b>
Obesity care	5,488	10,617	93	10,562	16,864	41,020	143	41,127	-108	-0
Saxenda	3,042	2,761	-9	2,813	10,676	11,435	7	11,640	-205	-2
Wegovy	2,446	7,856	221	7,749	6,188	29,585	378	29,488	97	0
<b>Diabetes &amp; Obesity total</b>	<b>43,239</b>	<b>56,129</b>	<b>30</b>	<b>53,526</b>	<b>156,412</b>	<b>209,935</b>	<b>34</b>	<b>209,784</b>	<b>151</b>	<b>0</b>
<b>Rare blood disorders</b>	<b>2,880</b>	<b>2,776</b>	<b>-4</b>	<b>2,760</b>	<b>11,706</b>	<b>11,618</b>	<b>-1</b>	<b>11,469</b>	<b>149</b>	<b>1</b>
NovoSeven	1,911	1,791	-6	1,898	8,308	7,764	-7	7,643	121	2
Haemophilia A	642	683	6	580	2,338	2,580	10	2,608	-28	-1
Haemophilia B	226	242	7	223	759	974	28	933	41	4
Rare endocrine	1,602	599	-63	1,101	7,138	3,171	-56	4,285	-1,114	-26
Other Rare disease	371	473	28	416	1,698	1,651	-3	1,637	14	1
<b>Biopharmaceuticals total</b>	<b>4,853</b>	<b>3,848</b>	<b>-21</b>	<b>4,283</b>	<b>20,542</b>	<b>16,440</b>	<b>-20</b>	<b>17,391</b>	<b>-951</b>	<b>-5</b>
<b>Total Sales</b>	<b>48,092</b>	<b>59,977</b>	<b>25</b>	<b>57,810</b>	<b>176,954</b>	<b>226,375</b>	<b>28</b>	<b>227,243</b>	<b>-868</b>	<b>-0</b>
COGS	-8,262	-10,469	27	-8,742	-28,448	-36,220	27	-34,919	-1,301	4
% Sales	17.2	17.5		15.1	16.1	16.0		15.4		
SG&A	-15,091	-15,886	5	15,877	-50,684	-58,858	16	-63,167	4,309	-7
% Sales	31.4	26.5		27.5	28.6	26.0		27.8		
Sales & Distribution	-13,743	-14,757	7	14,605	-46,217	-54,330	18	-58,176	3,846	-7
% Sales	28.6	24.6		25.3	26.1	24.0		25.6		
Administration	-1,348	-1,129	-16	1,272	-4,467	-4,528	1	-4,991	463	-9
% Sales	2.8	1.9		2.2	2.5	2.0		2.2		
R&D	-8,085	-9,257	14	7,513	-24,047	-31,240	30	-30,775	-465	2
% Sales	16.8	15.4		13.0	13.6	13.8		13.5		
License and other income	433	284	-34	141	1,034	400	-61	481	-81	-17
<b>Operating profit</b>	<b>17,087</b>	<b>24,650</b>	<b>44</b>	<b>25,813</b>	<b>74,809</b>	<b>100,458</b>	<b>34</b>	<b>98,846</b>	<b>1,612</b>	<b>2</b>
Margin	35.5	41.1		44.7	42.3	44.4		43.5		
Net financials	-771	408	-153	1,008	-5,747	1,654	-129	2,583	-929	-36
Associates	0	0	nm		0	0	nm			
Financial income	-3,200	-1,353	-58		239	2,536	961			
Financial expense	2,429	1,761	-27		-5,986	-882	-85			
<b>Pretax income</b>	<b>16,316</b>	<b>25,058</b>	<b>54</b>	<b>26,821</b>	<b>69,062</b>	<b>102,112</b>	<b>48</b>	<b>101,429</b>	<b>683</b>	<b>1</b>
Tax rate %	16.7	20.3	22	20.1	19.6	20.0	2	19.9		
<b>Net profit</b>	<b>13,592</b>	<b>19,970</b>	<b>47</b>	<b>21,437</b>	<b>55,525</b>	<b>81,690</b>	<b>47</b>	<b>81,261</b>	<b>429</b>	<b>1</b>
% Sales	28.3	33		37.1	31.4	36.1		35.8		
<b>BofA adjusted EPS</b>	<b>3.01</b>	<b>4.49</b>	<b>49</b>	<b>4.78</b>	<b>12.22</b>	<b>18.26</b>	<b>49</b>	<b>18.76</b>	<b>-1</b>	<b>-3</b>
Shares diluted, average	4,523	4,452	-2	4,489	4,545	4,474	-2	4,406	68	2
<b>DPS</b>		<b>0.00</b>			<b>6.06</b>	<b>9.06</b>	<b>49</b>			

Source: Company reports, incl. company-collated consensus forecasts, BofA Global Research

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# Models

## Exhibit 3: Novo Nordisk Sales Model

BofA product forecasts

December Year-End (DKKm)	2022A	1Q 23A	2Q 23A	3Q 23A	4Q 23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	% Chg			CAGR
															2022A	2023E	2024E	25-28E
Human Insulin (Diabetes)	8,186	2,012	1,967	1,626	1,846	7,451	7,220	7,173	7,137	7,111	7,095	7,087	7,095	7,095	-10	-9	-3	-0.4
Tresiba (Diabetes)	9,353	2,179	1,747	1,910	1,737	7,573	6,898	7,009	7,149	7,292	6,138	5,524	4,845	4,259	-4	-19	-9	-4.3
Levemir (Diabetes)	4,579	1,173	753	984	619	3,529	3,098	3,055	3,017	2,985	2,968	2,954	2,942	2,933	-19	-23	-12	-1.0
Xultophy (IDegLira) (Diabetes)	2,809	781	854	798	757	3,190	3,443	3,300	3,165	3,038	2,918	2,752	2,559	2,386	6	14	8	-4.0
Ryzodeg	2,889	971	986	864	860	3,681	4,366	4,148	3,940	3,743	3,556	3,378	3,209	3,049	69	27	19	-5.0
Novo Rapid (Diabetes)	15,460	3,970	3,064	3,234	3,425	13,693	13,339	13,428	13,517	13,607	13,698	13,790	13,883	13,977	-3	-11	-3	0.7
Faster acting insulin aspart (Diabetes)	2,003	518	447	574	449	1,988	2,127	2,234	2,345	2,463	2,536	2,613	2,448	2,143	15	-1	7	4.3
Novo Mix (Diabetes)	7,673	1,805	1,470	1,355	1,529	6,159	6,062	6,042	6,023	6,004	5,987	5,971	5,955	5,940	-19	-20	-2	-0.3
Victoza (Diabetes)	12,322	2,815	1,836	2,227	2,149	9,027	6,729	5,527	4,822	4,369	4,045	3,791	3,575	3,384	-18	-27	-25	-9.9
Ozempic (Diabetes)	59,750	19,640	22,101	23,912	26,630	92,283	122,343	154,063	181,787	206,096	229,941	254,413	272,126	280,289	77	54	33	14.3
Rybelsus (Diabetes)	11,299	4,356	3,988	4,496	4,770	17,610	23,960	29,004	33,685	35,521	36,586	37,318	38,064	38,826	134	56	36	8.0
Icodec (LA basal insulin) Diabetes	0	0	0	0	48	48	1,710	2,850	3,800	4,560	5,035	5,320	5,510	5,700	nm	nm	3,500	20.9
Others Diabetes	3,225	729	667	594	694	2,684	2,594	2,542	2,491	2,441	2,392	2,345	2,298	2,252	-10	-17	-3	-2.0
<b>Diabetes total Including pipeline</b>	<b>139,548</b>	<b>40,949</b>	<b>39,880</b>	<b>42,574</b>	<b>45,512</b>	<b>168,915</b>	<b>203,889</b>	<b>240,374</b>	<b>272,880</b>	<b>299,231</b>	<b>322,897</b>	<b>347,255</b>	<b>364,502</b>	<b>372,232</b>	<b>23</b>	<b>21</b>	<b>21</b>	<b>10.3</b>
Wegovy Obesity	6,188	4,563	7,518	9,648	7,856	29,585	74,686	99,761	122,826	139,000	145,563	150,491	154,333	158,294	342	378	152	13.4
Saxenda Obesity	10,676	3,279	2,788	2,607	2,761	11,435	8,616	5,569	4,734	4,024	3,420	2,907	2,471	2,100	53	7	-25	-15.0
Cagrilintide Obesity & Diabetes	0	0	0	0	0	0	0	2,800	5,600	7,700	8,750	9,275	9,625	9,800	nm	nm	nm	46.2
Sema NASH NASH	0	0	0	0	0	0	0	1,750	3,000	4,000	4,500	4,750	4,900	5,000	nm	nm	nm	37.0
<b>Total Obesity</b>	<b>16,864</b>	<b>7,842</b>	<b>10,306</b>	<b>12,255</b>	<b>10,617</b>	<b>41,020</b>	<b>83,302</b>	<b>109,880</b>	<b>136,160</b>	<b>154,724</b>	<b>162,233</b>	<b>167,423</b>	<b>171,329</b>	<b>175,194</b>	<b>101</b>	<b>143</b>	<b>103</b>	<b>22.9</b>
NovoSeven (Haemophilia)	8,308	2,101	1,794	2,078	1,791	7,764	7,639	7,639	7,639	7,639	7,639	7,639	7,639	7,639	15	-7	-2	0.0
Haemophilia A	2,338	660	688	549	683	2,580	2,731	2,932	3,148	3,380	3,576	3,784	3,943	4,077	11	10	6	6.8
Rare endocrine (Growth Hormone)	7,138	1,128	902	542	599	3,171	4,267	4,311	4,356	4,403	4,450	4,499	4,550	4,602	-2	-56	35	1.1
Etavopivat Sickle cell disease	0	0	0	0	0	0	0	375	1,250	2,250	3,200	3,600	3,900	4,100	nm	nm	nm	104.3
Other Rare disease	1,698	399	376	403	473	1,651	1,654	1,683	1,712	1,742	1,772	1,803	1,834	1,866	1	-3	0	1.7
<b>Rare disease total</b>	<b>20,542</b>	<b>4,576</b>	<b>4,114</b>	<b>3,902</b>	<b>3,848</b>	<b>16,440</b>	<b>17,536</b>	<b>17,801</b>	<b>18,083</b>	<b>18,383</b>	<b>18,649</b>	<b>18,929</b>	<b>19,162</b>	<b>19,373</b>	<b>7</b>	<b>-20</b>	<b>7</b>	<b>1.6</b>
Ziltivekimab IL6, CV disease	0	0	0	0	0	0	0	0	0	900	1,800	1,950	2,040	2,100	nm	nm	nm	nm
Concizumab (TFP inhibitor)																		
Haemophilia	0	0	0	0	0	0	180	300	390	450	510	555	585	600	nm	nm	nm	19.3
Sema Alzhemiers Alzhemiers	0	0	0	0	0	0	0	240	500	760	1,000	1,100	1,160	1,200	nm	nm	nm	60.9
<b>Total Sales</b>	<b>176,954</b>	<b>53,367</b>	<b>54,300</b>	<b>58,731</b>	<b>59,977</b>	<b>226,375</b>	<b>304,907</b>	<b>368,970</b>	<b>429,262</b>	<b>476,697</b>	<b>510,289</b>	<b>540,813</b>	<b>562,679</b>	<b>574,799</b>	<b>26</b>	<b>28</b>	<b>35</b>	<b>11.4</b>

Source: BofA Global Research, company reports

BofA GLOBAL RESEARCH

**Exhibit 4: Novo Nordisk Profit and Loss Model**

BofA P/L forecasts

December Year-End (DKKm)	2022A	1Q 23A	2Q 23A	3Q 23A	4Q 23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	% Chg		CAGR	
															2022A	2023E	2024E	25-28E
<b>Sales</b>	<b>176,954</b>	<b>53,367</b>	<b>54,300</b>	<b>58,731</b>	<b>59,977</b>	<b>226,375</b>	<b>304,907</b>	<b>368,970</b>	<b>429,262</b>	<b>476,697</b>	<b>510,289</b>	<b>540,813</b>	<b>562,679</b>	<b>574,799</b>	26	28	35	11.4
COGS	-28,448	-8,182	-7,856	-9,713	-10,469	-36,220	-47,261	-56,821	-66,106	-73,411	-78,584	-83,285	-86,653	-88,519	20	27	30	11.4
% of sales	16.1	15.3	14.5	16.5	17.5	16.0	15.5	15.4	15.4	15.4	15.4	15.4	15.4	15.4				
<b>Gross profit</b>	<b>148,506</b>	<b>45,185</b>	<b>46,444</b>	<b>49,018</b>	<b>49,508</b>	<b>190,155</b>	<b>257,647</b>	<b>312,148</b>	<b>363,156</b>	<b>403,286</b>	<b>431,704</b>	<b>457,527</b>	<b>476,026</b>	<b>486,280</b>	27	28	35	16.1
Margin %	83.9	84.7	85.5	83.5	82.5	84.0	84.5	84.6	84.6	84.6	84.6	84.6	84.6	84.6				
SG&A	-50,684	-13,483	-15,414	-14,075	-15,886	-58,858	-76,227	-91,504	-105,598	-116,791	-125,021	-129,795	-135,043	-137,952	23	16	30	11.0
% of sales	28.6	25.3	28.4	24.0	26.5	26.0	25.0	24.8	24.6	24.5	24.5	24.0	24.0	24.0				
Sales & Distribution	-46,217	-12,412	-14,342	-12,819	-14,757	-54,330	-70,129	-84,125	-97,013	-107,257	-114,815	-118,979	-123,789	-126,456	25	18	29	10.9
% of sales	26.1	23.3	26.4	21.8	24.6	24.0	23.0	22.8	22.6	22.5	22.5	22.0	22.0	22.0				
Administration	-4,467	-1,071	-1,072	-1,256	-1,129	-4,528	-6,098	-7,379	-8,585	-9,534	-10,206	-10,816	-11,254	-11,496	10	1	35	11.4
% of sales	2.5	2.0	2.0	2.1	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
R&D	-24,047	-6,728	-7,127	-8,128	-9,257	-31,240	-42,687	-52,763	-62,243	-69,121	-73,992	-78,418	-81,588	-83,346	35	30	37	11.9
% of sales	13.6	12.6	13.1	13.8	15.4	13.8	14.0	14.3	14.5	14.5	14.5	14.5	14.5	14.5				
<b>Operating profit, pre-license</b>	<b>73,775</b>	<b>24,974</b>	<b>23,903</b>	<b>26,815</b>	<b>24,366</b>	<b>100,058</b>	<b>138,733</b>	<b>167,881</b>	<b>195,314</b>	<b>217,374</b>	<b>232,692</b>	<b>249,315</b>	<b>259,395</b>	<b>264,983</b>	27	36	39	11.5
Margin %	41.7	46.8	44.0	45.7	40.6	44.2	45.5	45.5	45.5	45.6	45.6	46.1	46.1	46.1				
License and other income	1,034	33	-15	98	284	400	400	400	400	400	400	400	400	400	211	-61	0	0.0
<b>Operating profit</b>	<b>74,809</b>	<b>25,007</b>	<b>23,888</b>	<b>26,913</b>	<b>24,650</b>	<b>100,458</b>	<b>139,133</b>	<b>168,281</b>	<b>195,714</b>	<b>217,774</b>	<b>233,092</b>	<b>249,715</b>	<b>259,795</b>	<b>265,383</b>	28	34	38	11.5
Margin %	42.3	46.9	44.0	45.8	41.1	44.4	45.6	45.6	45.6	45.7	45.7	46.2	46.2	46.2				
Net financials	-5,747	-270	366	1,150	408	1,654	1,109	75	-683	-670	-645	-603	-544	-475	nm	nm	-33	-305.1
<b>Pretax income</b>	<b>69,062</b>	<b>24,737</b>	<b>24,254</b>	<b>28,063</b>	<b>25,058</b>	<b>102,112</b>	<b>140,242</b>	<b>168,356</b>	<b>195,031</b>	<b>217,103</b>	<b>232,447</b>	<b>249,111</b>	<b>259,251</b>	<b>264,907</b>	17	48	37	11.4
Tax charge	-13,537	-4,923	-4,826	-5,585	-5,088	-20,422	-28,048	-33,671	-39,006	-43,421	-46,489	-49,822	-51,850	-52,981	20	51	37	11.4
Tax rate %	19.6	19.9	19.9	19.9	20.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	2	2	0	
<b>Net profit</b>	<b>55,525</b>	<b>19,814</b>	<b>19,428</b>	<b>22,478</b>	<b>19,970</b>	<b>81,690</b>	<b>112,194</b>	<b>134,685</b>	<b>156,025</b>	<b>173,683</b>	<b>185,957</b>	<b>199,289</b>	<b>207,401</b>	<b>211,926</b>	16	47	37	11.4
Margin %	31.4	37.1	35.8	38.3	33.3	36.1	36.8	36.5	36.3	36.4	36.4	36.8	36.9	36.9				
D&A	7,362	1,719	2,177	2,525	1,306	7,727	9,177	10,861	12,768	14,933	17,292	19,803	22,440	25,158	22	5	19	16.8
EBIT	74,809	25,007	23,888	26,913	24,650	100,458	139,133	168,281	195,714	217,774	233,092	249,715	259,795	265,383	28	34	38	11.5
Margin %	42.3	46.9	44.0	45.8	41.1	44.4	45.6	45.6	45.6	45.7	45.7	46.2	46.2	46.2				
EBITDA	82,171	26,726	26,065	29,438	25,956	108,185	148,310	179,142	208,482	232,707	250,383	269,518	282,235	290,541	27	32	37	11.8
Margin %	46.4	50.1	48.0	50.1	43.3	47.8	48.6	48.6	48.6	48.8	49.1	49.8	50.2	50.5				
<b>Per share data</b>																		
<b>GAAP EPS (diluted)</b>	<b>12.22</b>	<b>4.39</b>	<b>4.31</b>	<b>5.01</b>	<b>4.49</b>	<b>18.26</b>	<b>25.44</b>	<b>31.08</b>	<b>36.67</b>	<b>41.52</b>	<b>45.18</b>	<b>49.15</b>	<b>51.88</b>	<b>53.72</b>	18	49	39	13.3
DPS	6.06	0.00	0.00	0.00	0.00	9.06	12.62	15.42	18.19	20.59	22.41	24.38	25.73	26.65	18	49	39	13.3
Shares average	4,531	4,499	4,490	4,477	4,439	4,460	4,396	4,319	4,241	4,169	4,102	4,041	3,983	3,931	-1	-2	-1	-1.7
Shares diluted, average	4,545	4,513	4,503	4,489	4,452	4,474	4,410	4,333	4,255	4,183	4,116	4,055	3,998	3,945	-1	-2	-1	-1.7

Source: BofA Global Research, company reports

BofA GLOBAL RESEARCH

## Price objective basis & risk

### Novo Nordisk (NONOF / NVO)

Our PO of DKK875/US\$125.2 assumes shares trade at c30x 2025E PE, above its prior absolute trading range given solid sales 25-28E CAGR (c11% versus sector c6%), increased confidence in growth from very positive outcomes data, and potential mid-term upside from strong obesity and continued strong GLP1 trends in diabetes

Our target sector multiple of c16x 25E PE is based on: 1) A 40% premium to the market average multiple which implies c15x 25E PE, a premium which is in line with the long-term historical trend for periods of growth for the sector during times of broader market uncertainty, 2) Regression analysis of historical sector forward PEs and three-year-forward EPS CAGR implies a target PE of c16x 25E PE based on sector growth of c7%, 3) Our DCF valuations imply c17x 25E PE

Upside risks to our PO are pipeline success, better-than-expected pipeline data/approvals, and better-than-expected launches of key products.

Downside risks to our PO are Wegovy & Rybelsus trajectory, China VBP insulin, risk of litigation, adverse currency moves, tirzepatide (Mounjaro) competition, and product concentration.

## Analyst Certification

I, Sachin Jain, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

### EMEA - Pharma & Biotech Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>BUY</b>				
	AstraZeneca	AZN	AZN US	Sachin Jain, CFA
	AstraZeneca	AZNCF	AZN LN	Sachin Jain, CFA
	Genmab	GNMSF	GMAB DC	Sachin Jain, CFA
	Genmab	GMAB	GMAB US	Sachin Jain, CFA
	Grifols S.A.	GIFLF	GRF SM	Graham Parry
	Grifols S.A. - B	GRFS	GRFS US	Graham Parry
	Grifols S.A. - B	GIFO	GRF/P SM	Graham Parry
	Merck KGaA	MKGAF	MRK GY	Sachin Jain, CFA
	Merck KGaA	MKKG	MKKG US	Sachin Jain, CFA
	Novartis	NOVSEF	NOVN SW	Graham Parry
	Novartis	NVS	NVS US	Graham Parry
	Novo Nordisk	NONOF	NOVOB DC	Sachin Jain, CFA
	Novo Nordisk	NVO	NVO US	Sachin Jain, CFA
	Sandoz Group AG	SDZXF	SDZ SW	Graham Parry
	Sandoz Group AG	SDZNY	SDZNY US	Graham Parry
	Sanofi	SNYNF	SAN FP	Graham Parry
	Sanofi	SNY	SNY US	Graham Parry
<b>NEUTRAL</b>				
	Bayer	BAYZF	BAYN GY	Sachin Jain, CFA
	Bayer	BAYRY	BAYRY US	Sachin Jain, CFA
	H. Lundbeck A/S	HLUKF	HLUNB DC	Sachin Jain, CFA
	Idorsia	IDRSF	IDIA SW	Sachin Jain, CFA
	Ipser	IPSEF	IPN FP	Sachin Jain, CFA
	Roche Holdings	RHHBF	ROG SW	Sachin Jain, CFA
	Roche Holdings	RHHBY	RHHBY US	Sachin Jain, CFA
<b>UNDERPERFORM</b>				
	GSK Plc	GSK	GSK US	Graham Parry
	GSK Plc	GLAXF	GSK LN	Graham Parry

## EMEA - Pharma &amp; Biotech Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Orion	ORINF	ORNBV FH	Graham Parry
	UCB	UCBJF	UCB BB	Graham Parry
	UCB	UCBJY	UCBJY US	Graham Parry

**IQmethod<sup>SM</sup> Measures Definitions****Business Performance**

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

**Numerator**

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

**Denominator**

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization

Shareholders' Equity

Sales

N/A

N/A

**Quality of Earnings**

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

**Numerator**

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash &amp; Equivalents

EBIT

**Denominator**

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

**Valuation Toolkit**

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

**Numerator**

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

**Denominator**

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

EV / EBITDA

Basic EBIT + Depreciation + Amortization

**IQmethod<sup>SM</sup>** is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of IQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

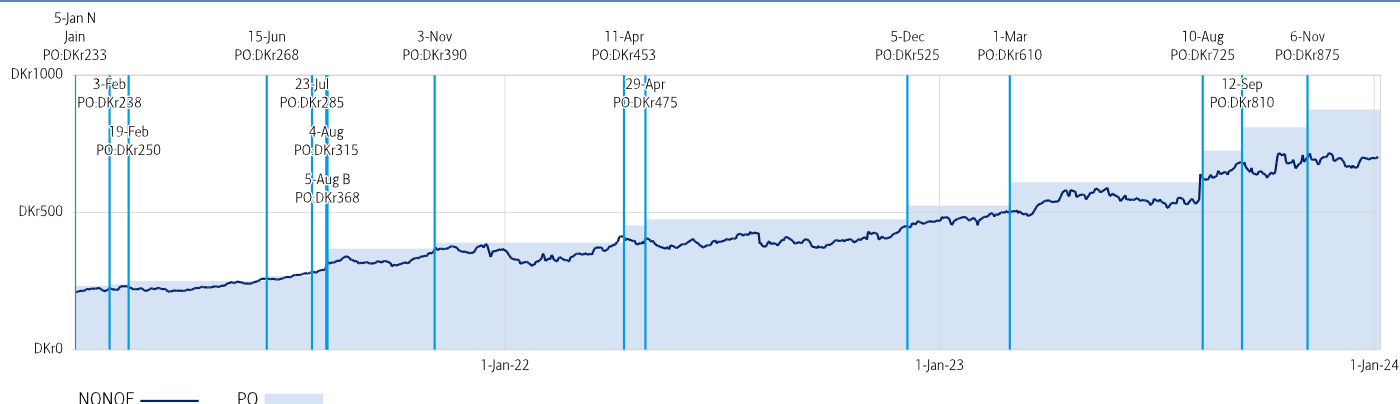
**IQdatabase<sup>®</sup>** is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

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# Disclosures

## Important Disclosures

### Novo Nordisk (NONOF) Price Chart

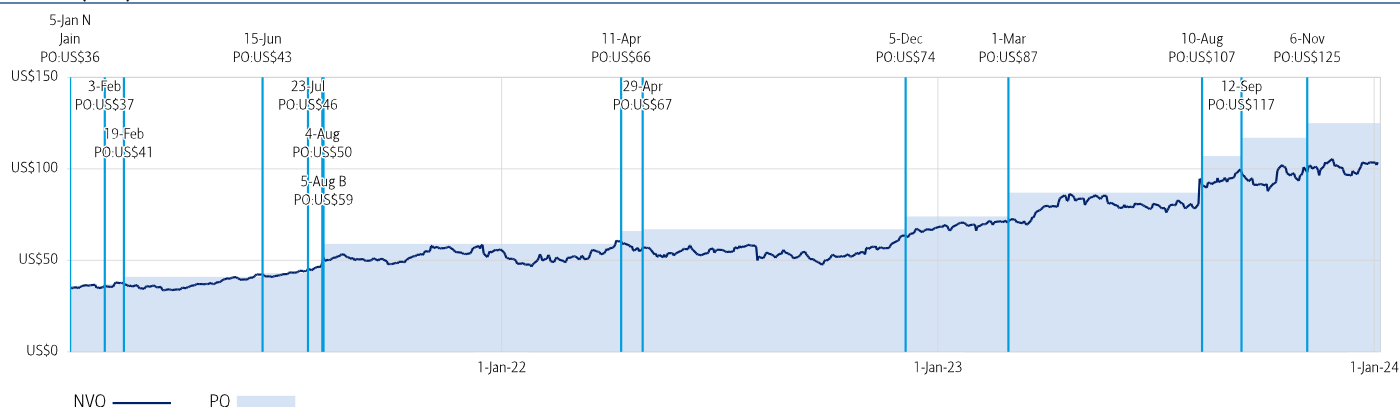


NONOF — PO

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

### Novo Nordisk (NVO) Price Chart



NVO — PO

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

### Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	234	60.94%	Buy	115	49.15%
Hold	80	20.83%	Hold	36	45.00%
Sell	70	18.23%	Sell	29	41.43%

### Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.



**FUNDAMENTAL EQUITY OPINION KEY:** Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R2</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R2</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

**INCOME RATINGS**, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. **Coverage Cluster** is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Price Charts for the securities referenced in this research report are available on the [Price Charts website](#), or call 1-800-MERRILL to have them mailed.

BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: Novo Nordisk.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Novo Nordisk.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Novo Nordisk.

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