

Sanofi

# FY23 preview. Expect in-line results & 24E guide. Beyfortus/Altuviio hot spots

Reiterate Rating: BUY | PO: 122.00 EUR | Price: 92.08 EUR

## Results Feb 1. Expect FY23E in line. FY24 guide unchanged

We expect SAN to report FY23E results in line with its mid-single-digit CER EPS growth guidance for FY23 and consensus and maintain its FY24E guidance for EPS down low-single-digits CER due to step up in R&D expenses and c200bp higher tax (OECD pillar II). We forecast FY23E EPS Eur8.14 +5.5% CER (-1.5% after c7% Fx headwind) and FY24E Eur7.84 -2% CER (-4% reported after -2% Fx). Both are broadly in line with cons Eur8.15/Eur7.87 but our 25E EPS of Eur9.27 is still c3% above cons. Key factors: 1) Dupixent Eur10,635m +28% (Eur2910m +21% in 4Q); 2) Altuviio Eur136m (Eur72m 4Q23) in its 3<sup>rd</sup> quarter on market (assumes Eur90m underlying sales but c15% patients on free drug); 3) Beyfortus Eur533m, above cons Eur418m driven by strong launches in US France and Germany leading to supply constraints. Our ests assume 1.177m doses (Eur428m) sold in US and Eur90m in France/Germany. Key will be outlook into 24E where we expect SAN to be cautious pending clarity on capacity (expected during 2Q23).

## FY24E guidance already given/de-risked

We see SAN's 24E guide as de-risked having already been given at 3Q23 (low-SD % CER decline). Our Eur7.84 -4% YoY is in line with CER guide (low-SD decline) with 2% -ve Fx (cons Eur7.87). However, we expect Sanofi to have adopted a conservative approach to rebased guidance leaving it room to beat on revenues (potentially Altuviio/ Beyfortus) and pull-through of Eur2bn cost savings (early termination of NOTUS COPD trial) through 24E. We see more debate over FY25E EPS given wide (Eur8.22-Eur9.51) range. Our Eur9.27 +18% YoY is towards the top end and above +14% YoY mean cons growth.

## Undervalued turnaround story. Pipeline & growth

Reiterate Buy and Eur122 PO: 1) 9x 25E PE undervalues c10% 25-28E EPS CAGR driven by Dupixent (Eur20bn peak), launches (Beyfortus/Altuviio plus SAN targeting 3-5 with Eur2-5bn peak 25-30E) and no major LOE until ≥2031; 2) Potential for improving pipeline to drive PE re-rating over mid-term. 24E sees PIII starts for Amltelimab AD, Frexalimab MS, PCV21, Toddler RSV, Rilzabrutinib CSU/asthma & PII starts for IL13-TSLP (asthma), oral-TNF and OA RSV; 4) 24E catalysts are +ve risk reward given low expectations for tolebrutinib PIII and PII data (Rilza & amltelimab asthma, anti-TL1A).

Estimates (Dec) (EUR)	2021A	2022A	2023E	2024E	2025E
EPS (Adjusted)	6.56	8.26	8.14	7.84	9.27
EPS Change (YoY)	11.9%	26.0%	-1.5%	-3.6%	18.2%
Dividend / Share	3.33	3.56	3.67	3.78	3.89
ADR EPS (Adjusted - US\$)	3.88	4.34	4.42	4.26	5.03
ADR Dividend / Share (US\$)	1.97	1.87	1.99	2.05	2.11
Valuation (Dec)					
P/E	14.0x	11.1x	11.3x	11.7x	9.94x
Dividend Yield	3.62%	3.87%	3.98%	4.10%	4.22%
EV / EBITDA*	10.5x	8.73x	8.92x	8.92x	7.70x
Free Cash Flow Yield*	7.35%	7.22%	3.58%	6.95%	8.38%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 8.

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.

**BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.**

**Refer to important disclosures on page 9 to 12. Analyst Certification on page 7. Price Objective Basis/Risk on page 7.**

12651831

Timestamp: 29 January 2024 01:36AM EST

29 January 2024

Equity

### Key Changes

(EUR)	Previous	Current
2024E EPS	7.85	7.84
2025E EPS	9.33	9.27

**Graham Parry >>**  
Research Analyst  
MLI (UK)  
+44 20 7996 0735  
[graham.parry@bofa.com](mailto:graham.parry@bofa.com)

**Sachin Jain, CFA >>**  
Research Analyst  
MLI (UK)  
+44 20 7995 9676  
[s.jain@bofa.com](mailto:s.jain@bofa.com)

**Joe Bowden >>**  
Research Analyst  
MLI (UK)  
[jbowden@bofa.com](mailto:jbowden@bofa.com)

**Charlie Haywood >>**  
Research Analyst  
MLI (UK)  
[charlie.haywood@bofa.com](mailto:charlie.haywood@bofa.com)

### Stock Data

Price (Common / ADR)	92.08 EUR / 50.14 USD
Price Objective	122.00 EUR / 65.00 USD
Date Established	30-Oct-2023 / 30-Oct-2023
Investment Opinion	A-1-7 / B-1-7
52-Week Range	80.60 EUR-105.18 EUR
Market Value (mn)	114,558 EUR
Shares Outstanding (mn)	1,244.1 / 2,488.2
Average Daily Value (mn)	134.90 USD
Free Float	70.0%
BofA Ticker / Exchange	SNYNF / ENP
BofA Ticker / Exchange	SNY / NYS
Bloomberg / Reuters	SAN FP / SASY.PA
ROE (2023E)	13.4%
Net Dbt to Eqty (Dec-2022A)	8.4%
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".**

OECD -organisation for economic cooperation and development

COPD - chronic obstructive pulmonary disease

CER -constant exchange rates

RSV -respiratory syncytial virus

TSLP - drug mechanism

# iQprofile<sup>SM</sup> Sanofi

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(EUR Millions)					
Sales	37,761	42,997	42,930	44,622	47,939
EBITDA Adjusted	11,845	14,236	13,938	13,931	16,147
Depreciation & Amortization	(2,645)	(3,195)	(3,199)	(3,250)	(3,305)
EBIT Adjusted	9,200	11,041	10,740	10,681	12,842
Net Interest & Other Income	(328)	(234)	(304)	(186)	(74.1)
Tax Expense / Benefit	(1,559)	(2,006)	(1,468)	(1,703)	(2,181)
Net Income (Adjusted)	8,213	10,341	10,182	9,877	11,672
Average Fully Diluted Shares Outstanding	1,258	1,257	1,257	1,265	1,265

<b>Key Cash Flow Statement Data</b>					
Net Income (Reported)	6,222	8,371	7,300	7,131	8,937
Depreciation & Amortization	2,645	3,195	3,199	3,250	3,305
Change in Working Capital	953	854	2.35	(59.1)	(116)
Deferred Taxation Charge	0	0	0	0	0
Other CFO	702	(1,894)	(163)	75.8	62.7
<b>Cash Flow from Operations</b>	<b>10,522</b>	<b>10,526</b>	<b>10,338</b>	<b>10,398</b>	<b>12,189</b>
Capital Expenditure	(2,043)	(2,201)	(6,218)	(2,335)	(2,468)
(Acquisition) / Disposal of Investments	(68.0)	(16.0)	0	0	0
Other CFI	(5,187)	142	167	167	167
<b>Cash Flow from Investing</b>	<b>(7,298)</b>	<b>(2,075)</b>	<b>(6,051)</b>	<b>(2,168)</b>	<b>(2,301)</b>
Share Issue / (Repurchase)	(196)	(309)	(500)	(500)	(500)
Cost of Dividends Paid	(4,008)	(4,168)	(4,619)	(4,758)	(4,900)
Increase (decrease) debt	(2,206)	(1,275)	(10.0)	(10.0)	(10.0)
Other CFF	(646)	(69.0)	0	0	0
<b>Cash Flow from Financing</b>	<b>(7,056)</b>	<b>(5,821)</b>	<b>(5,129)</b>	<b>(5,268)</b>	<b>(5,410)</b>
<b>Total Cash Flow (CFO + CFI + CFF)</b>	<b>(3,832)</b>	<b>2,630</b>	<b>(842)</b>	<b>2,962</b>	<b>4,478</b>
FX and other changes to cash	15.0	8.00	0	0	0
Change in Cash	(3,817)	2,638	(842)	2,962	4,478
Change in Net Debt	1,611	(3,913)	832	(2,972)	(4,488)
Net Debt	10,208	6,295	7,127	4,155	(333)

<b>Key Balance Sheet Data</b>					
Property, Plant & Equipment	10,028	9,869	9,773	9,695	9,693
Goodwill	48,056	49,892	49,892	49,892	49,892
Other Intangibles	21,407	21,640	23,851	22,564	21,218
Other Non-Current Assets	10,187	11,295	11,394	11,492	11,591
Trade Receivables	7,568	8,424	8,411	8,742	9,392
Cash & Equivalents	10,098	12,736	11,894	14,856	19,334
Other Current Assets	12,898	12,866	12,846	13,352	14,345
Total Assets	120,242	126,722	128,060	130,593	135,465
Long-Term Debt	17,123	14,857	14,847	14,837	14,827
Other Non-Current Liabilities	12,793	12,749	11,911	11,765	11,548
Short-Term Debt	3,183	4,174	4,174	4,174	4,174
Other Current Liabilities	18,112	19,790	19,759	20,538	22,065
Total Liabilities	51,211	51,570	50,691	51,314	52,614
Total Equity	69,031	75,152	77,369	79,279	82,852
Total Equity & Liabilities	120,242	126,722	128,060	130,593	135,465

<b>Business Performance*</b>					
Return On Capital Employed	7.39%	8.69%	8.77%	8.35%	9.69%
Return On Equity	12.5%	14.4%	13.4%	12.6%	14.4%
Operating Margin	21.5%	24.8%	20.8%	19.8%	23.0%
Free Cash Flow (MM)	8,479	8,325	4,120	8,063	9,721

<b>Quality of Earnings*</b>					
Cash Realization Ratio	1.28x	1.02x	1.02x	1.05x	1.04x
Asset Replacement Ratio	1.92x	1.93x	5.43x	1.95x	1.97x
Tax Rate	20.0%	19.2%	17.1%	19.7%	19.9%
Net Debt/Equity	14.8%	8.38%	9.21%	5.24%	-0.40%
Interest Cover	25.0x	25.1x	11.4x	12.5x	16.9x

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 8.

## Company Sector

Pharmaceuticals

## Company Description

Sanofi is a global pharmaceutical company headquartered in Paris, France. It has 4 divisions: Specialty Pharmaceuticals (with a focus on atop allergic disorders, oncology and, through the acquisition of Genzyme, rare diseases), Vaccines, General medicines and Consumer Health. Sanofi is present in most geographies worldwide deriving it sales from US, Europe and RoW/emerging markets in roughly equal portion.

## Investment Rationale

Valuation undervalues Dupixent growth, improving pipeline and new management driving improved cost focus, pipeline growth, improved capital allocation and communication,

## Stock Data

Shares / ADR	0.50
Price to Book Value	1.5x

## Quarterly Earnings Estimates

	2022	2023
Q1	1.94A	2.16A
Q2	1.73A	1.74A
Q3	2.88A	2.55A
Q4	1.71A	1.68E

## Key Changes

(US\$)	Previous	Current
2025E EPS	5.07	5.03

**Exhibit 1: Beyfortus quarterly model**

Beyfortus dose price and sales estimates

<b>US</b>	<b>23E</b>	<b>24E</b>
Doses (m)	1.177	2.40
Price \$	495	495
GTN	80%	80%
Cohort	3.90	3.90
Penetration	30%	62%
<b>US sales</b>	<b>466</b>	<b>950</b>
<b>US sales Eur</b>	<b>428</b>	<b>872</b>
<b>EU5</b>		
Doses (m)	0.3	0.6
Price	350	350
GTN	100%	100%
Sales (Eurm)	105	210
Fx	1.09	1.09
<b>Ww Sales (Eurm)</b>	<b>533</b>	<b>1082</b>

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

**Exhibit 2: Beyfortus quarterly model**

We forecast Eur533m and Eur1.1bn in 23E/24E for Beyfortus

<b>US</b>	<b>23E</b>	<b>24E</b>
Doses (m)	1.177	2.40
Price \$	495	495
GTN	80%	80%
Cohort	3.90	3.90
Penetration	30%	62%
<b>US sales</b>	<b>466</b>	<b>950</b>
<b>US sales Eur</b>	<b>428</b>	<b>872</b>
<b>EU5</b>		
Doses (m)	0.3	0.6
Price	350	350
GTN	100%	100%
Sales (Eurm)	105	210
Fx	1.09	1.09
<b>Ww Sales (Eurm)</b>	<b>533</b>	<b>1082</b>

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

# Preview

## Exhibit 3: Sanofi 4Q23 Preview

BofA esiamtes for San 4Q23E and FY23E

	Previous 4Q22A	BofAe 4Q23E	% Chg	Previous 2022A	BofAe 2023E	% Chg
Dupixent inc pipeline	2,372	2,910	23	8,263	10,635	29
Aubagio	493	150	-69	2,031	984	-52
Kevzara	79	83	5	339	335	-1
Cerezyme	159	150	-5	707	703	-0
Cerdelga	71	77	9	288	300	4
Myozyme/Lumizyme/Nexviazyme	281	262	-7	1,154	1,179	2
Fabrazyme	240	237	-1	938	986	5
Sarclisa	86	99	15	294	377	28
Jevtana	88	63	-29	393	306	-22
Fasturtec	47	47	0	177	177	0
Alprolix	141	140	-0	504	538	7
Altuviiio (BIVV001)	0	72	nm	0	136	nm
Eloctate	138	107	-23	580	475	-18
<b>Specialty Care</b>	<b>4,414</b>	<b>4,592</b>	<b>4</b>	<b>16,457</b>	<b>17,918</b>	<b>9</b>
Lovenox/Clexane	289	247	-14	1,310	1,109	-15
Toujeo	272	245	-10	1,117	1,090	-2
Plavix consolidated	245	225	-8	983	919	-7
Tzield	0	21	nm	0	30	nm
<b>Core Assets</b>	<b>1,598</b>	<b>1,509</b>	<b>-6</b>	<b>6,389</b>	<b>6,212</b>	<b>-3</b>
Lantus	429	293	-32	2,259	1,436	-36
<b>Non-Core Assets</b>	<b>1,579</b>	<b>1,259</b>	<b>-20</b>	<b>7,118</b>	<b>5,531</b>	<b>-22</b>
<b>Industrial Sales</b>	<b>177</b>	<b>177</b>	<b>-0</b>	<b>620</b>	<b>583</b>	<b>-6</b>
<b>General Medicines incl pipeline</b>	<b>3,354</b>	<b>2,945</b>	<b>-12</b>	<b>14,127</b>	<b>12,326</b>	<b>-13</b>
<b>Total Rx Pharma Sales inc Generics</b>	<b>7,768</b>	<b>7,537</b>	<b>-3</b>	<b>30,584</b>	<b>30,244</b>	<b>-1</b>
Polio/ Pertussis /Hib Vaccines	443	387	-13	2,285	2,118	-7
Adult Booster	148	152	3	587	611	4
Meningitis, Travel and other Endemics Vaccines	231	224	-3	1,213	1,152	-5
Seasonal flu	802	767	-4	2,977	2,695	-9
Beyfortus (nirsevimab)	0	396	nm	0	533	nm
<b>Vaccines</b>	<b>1,715</b>	<b>1,956</b>	<b>14</b>	<b>7,228</b>	<b>7,444</b>	<b>3</b>
<b>Consumer health care</b>	<b>1,242</b>	<b>1,276</b>	<b>3</b>	<b>5,185</b>	<b>5,241</b>	<b>1</b>
<b>Sales</b>	<b>10,725</b>	<b>10,770</b>	<b>0</b>	<b>42,997</b>	<b>42,930</b>	<b>-0</b>
Other Revenues	731	898	23	2,392	2,990	25
COGS	-3,734	-3,641	-2	-13,692	-13,823	1
% Sales	34.8	33.8		31.8	32.2	
Gross profit	7,722	8,026			32,096	
Margin %	72.0	74.5			74.8	
R&D	-1,823	-1,798	-1	-6,706	-6,654	-1
% Sales	17.0	16.7		15.6	15.5	
S,G&A	-2,895	-2,843	-2	-10,492	-10,604	1
% Sales	27.0	26.4		24.4	24.7	
Other current operating income/expenses	-276	-765	177	-1,514	-2,168	43
Associates, post-tax	6	24	293	88	99	12
Minority interests	-10	-7	-27	-33	-36	10
<b>Business Operating Income</b>	<b>2,724</b>	<b>2,637</b>	<b>-3</b>	<b>13,040</b>	<b>12,733</b>	<b>-2</b>
Margin %	25.4	24.5		30.3	29.7	
Net Financial Income	-28	-45	62	-234	-177	-24
Business Income tax expense	-555	-491	-12	-2,465	-2,374	-4
Business Income tax rate (%)	20.6	19.1		19.3	19.0	
<b>Business Net Income</b>	<b>2,141</b>	<b>2,101</b>	<b>-2</b>	<b>10,341</b>	<b>10,182</b>	<b>-2</b>
<b>Business (Core) EPS</b>	<b>1.71</b>	<b>1.68</b>	<b>-2</b>	<b>8.26</b>	<b>8.14</b>	<b>-1</b>
<b>DPS</b>				<b>3.56</b>	<b>3.67</b>	<b>3</b>

Source: Company data, Vara consensus, Visible Alpha consensus, BofA Global Research Estimates

BofA GLOBAL RESEARCH

# Models

## Exhibit 4: Sanofi Sales Model

Sales forecasts, % changes, 24-27E CAGRs

Year to December (€m)	2022A	1Q 23A	2Q 23A	3Q 23A	4Q 23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	Change YoY %			CAGR
															2022A	2023E	2024E	25-28E
<b>SPECIALTY CARE- MARKETED</b>	<b>16,457</b>	<b>4,288</b>	<b>4,385</b>	<b>4,589</b>	<b>4,520</b>	<b>17,782</b>	<b>18,983</b>	<b>20,646</b>	<b>21,879</b>	<b>22,682</b>	<b>23,282</b>	<b>23,836</b>	<b>24,423</b>	<b>25,031</b>	<b>29</b>	<b>8</b>	<b>7</b>	<b>4</b>
<b>Dupixent inc pipeline</b>	<b>8,293</b>	<b>2,316</b>	<b>2,562</b>	<b>2,847</b>	<b>2,910</b>	<b>10,635</b>	<b>12,457</b>	<b>14,331</b>	<b>15,967</b>	<b>17,265</b>	<b>18,441</b>	<b>19,498</b>	<b>20,461</b>	<b>21,514</b>	<b>58</b>	<b>28</b>	<b>17</b>	<b>9</b>
<b>Dupixent - marketed</b>	<b>8,293</b>	<b>2,316</b>	<b>2,562</b>	<b>2,847</b>	<b>2,910</b>	<b>10,635</b>	<b>12,457</b>	<b>14,001</b>	<b>15,158</b>	<b>15,978</b>	<b>16,502</b>	<b>16,997</b>	<b>17,507</b>	<b>18,032</b>	<b>58</b>	<b>28</b>	<b>17</b>	<b>6</b>
Dupixent AD (Atopic dermatitis)	7,104	1,943	2,137	2,362	2,387	8,830	9,990	10,926	11,654	12,249	12,582	12,991	13,446	13,915	58	24	13	5
Dupixent A (Asthma)	1,113	308	335	360	364	1,367	1,565	1,632	1,700	1,659	1,784	1,827	1,842	1,857	49	23	14	3
Dupixent NI (BP, EG, UC)	0	0	0	0	0	0	0	0	104	207	259	311	415	492	nm	nm	nm	nm
Dupixent EoE (CSU)	46	30	40	50	69	189	403	693	905	1,021	1,036	1,052	1,069	1,085	nm	310	114	14
Dupixent CSU (CSU)	0	0	0	0	0	0	0	150	300	450	600	750	875	1,000	nm	nm	nm	59
Dupixent COPD (COPD)	0	0	0	0	0	0	0	180	405	630	1,080	1,440	1,665	1,990	nm	nm	nm	82
Aubagio (Multiple sclerosis)	2,031	419	216	199	150	984	344	258	204	162	130	104	84	69	4	-52	-65	-21
Kevzara (anti IL6 for RA)	339	73	92	87	83	335	341	351	362	377	351	313	286	268	18	-1	2	-0
Cerezyme (Gaucher's)	707	196	181	176	150	703	706	712	713	714	717	720	728	736	4	-0	0	0
Cerdelga (Oral gaucher's)	288	73	77	73	77	300	310	298	206	96	82	72	63	56	13	4	3	-35
Myozyme/Lumizyme/Nexvazyme (Pompe's)	1,154	309	311	297	262	1,179	1,123	1,087	1,095	1,104	1,137	1,171	1,206	1,242	15	2	-5	2
Fabrazyme (Fabry's)	938	246	250	253	237	986	1,028	1,064	1,096	1,129	1,163	1,198	1,233	1,270	11	5	4	3
Other rare disease products	337	110	103	96	77	386	379	379	379	379	381	383	385	387	-1	15	-2	0
Jevtana (2nd line HRPc)	393	79	97	67	63	306	125	111	103	97	94	90	87	83	-14	-22	-59	-5
Fasturtec	177	45	45	40	47	177	178	181	184	187	190	194	197	201	16	0	0	2
Sarclisa (RRMM)	294	87	94	97	99	377	453	517	561	594	624	650	670	685	67	28	20	6
Eloctate	580	118	130	120	107	475	391	325	277	239	216	201	188	176	3	-18	-18	-13
Alprolix	504	125	135	138	140	538	565	593	609	625	642	659	676	694	22	7	5	3
Cablivi (Caplacizumab)	211	58	55	56	69	238	271	301	324	340	354	367	376	382	29	13	14	6
Enjaymo	22	16	17	16	17	66	132	198	248	277	294	303	312	321	nm	200	100	14
Xenpozyme	21	18	20	27	30	95	181	271	361	384	406	415	424	429	nm	352	90	14
<b>GENERAL MEDICINES- MARKETED</b>	<b>14,127</b>	<b>3,272</b>	<b>3,114</b>	<b>2,986</b>	<b>2,945</b>	<b>12,326</b>	<b>11,536</b>	<b>11,240</b>	<b>11,101</b>	<b>11,021</b>	<b>10,943</b>	<b>10,818</b>	<b>10,744</b>	<b>10,598</b>	<b>-1</b>	<b>-13</b>	<b>-6</b>	<b>-1</b>
<b>Core Gen Med Assets</b>	<b>6,389</b>	<b>1,617</b>	<b>1,565</b>	<b>1,512</b>	<b>1,509</b>	<b>6,212</b>	<b>6,082</b>	<b>6,130</b>	<b>6,236</b>	<b>6,367</b>	<b>6,482</b>	<b>6,538</b>	<b>6,633</b>	<b>6,649</b>	<b>11</b>	<b>-3</b>	<b>-2</b>	<b>2</b>
Lovenox/Clexane (Thrombosis)	1,310	323	284	255	247	1,109	1,014	954	907	871	837	805	773	743	-12	-15	-9	-4
Toujeo (Diabetes)	1,117	289	291	265	245	1,090	1,068	1,101	1,131	1,169	1,198	1,227	1,258	1,217	15	-2	-2	3
Plavix consolidated (Stroke prevention)	983	236	240	218	225	919	921	942	964	988	1,012	1,037	1,063	1,089	6	-7	0	2
Tzield	0	0	0	9	21	30	80	160	269	376	470	555	611	641	nm	nm	167	43
Other core assets	1,091	769	750	774	771	3,064	2,999	2,973	2,965	2,962	2,965	2,914	2,928	2,957	5	181	-2	-0
<b>Non-core Gen Med Assets</b>	<b>7,118</b>	<b>1,520</b>	<b>1,404</b>	<b>1,348</b>	<b>1,259</b>	<b>5,531</b>	<b>4,901</b>	<b>4,584</b>	<b>4,365</b>	<b>4,180</b>	<b>4,010</b>	<b>3,852</b>	<b>3,704</b>	<b>3,563</b>	<b>-7</b>	<b>-22</b>	<b>-11</b>	<b>-4</b>
Lantus (Long-acting insulin)	2,259	447	353	343	293	1,436	1,151	1,015	939	886	838	793	752	713	-9	-36	-20	-6
Other non-core assets	4,381	1,073	1,051	1,005	966	4,095	3,750	3,570	3,426	3,293	3,172	3,059	2,952	2,850	-7	-7	-8	-4
<b>Industrial Sales</b>	<b>620</b>	<b>135</b>	<b>145</b>	<b>126</b>	<b>177</b>	<b>583</b>	<b>554</b>	<b>526</b>	<b>500</b>	<b>475</b>	<b>451</b>	<b>428</b>	<b>407</b>	<b>387</b>	<b>-23</b>	<b>-6</b>	<b>-5</b>	<b>-5</b>
<b>Pipeline</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>183</b>	<b>468</b>	<b>669</b>	<b>1,643</b>	<b>3,110</b>	<b>4,821</b>	<b>6,495</b>	<b>8,854</b>	<b>10,988</b>	<b>13,141</b>	<b>14,892</b>	<b>nm</b>	<b>nm</b>	<b>146</b>	<b>42</b>
Fitusiran (Hemophilia)	0	0	0	0	0	0	0	50	200	300	375	413	438	450	nm	nm	nm	96
Amltelimab (AD)	0	0	0	0	0	0	0	0	0	0	195	488	975	1,300	nm	nm	nm	nm
Altuviiio (BIVV001) (Hemophilia)	0	0	18	46	72	136	561	1,100	1,600	1,850	2,050	2,200	2,300	2,400	nm	nm	313	23
Beyfortus (nirsevimab) (RSV)	0	0	0	137	396	533	1,082	1,500	1,800	2,000	2,200	2,300	2,400	2,500	nm	nm	103	14
Venglustat (GM2G, T3 Gaucher's, Fabry's)	0	0	0	0	0	0	0	0	25	50	100	125	138	150	nm	nm	nm	nm
Itepekimab (IL33) (COPD)	0	0	0	0	0	0	0	0	88	263	525	613	665	700	nm	nm	nm	nm
Tolebrutinib MS (MS)	0	0	0	0	0	0	0	115	275	475	625	688	725	750	nm	nm	nm	76
Rilzabrutinib (PRN1008) (2) (ITP)	0	0	0	0	0	0	0	15	25	45	95	125	146	160	nm	nm	nm	85
PCV21 Infants (SP0202) (Pneumococcal vaccine)	0	0	0	0	0	0	0	0	0	0	225	563	1,125	1,500	nm	nm	nm	nm
Toddler RSV (SP0125) (RSV vaccine)	0	0	0	0	0	0	0	0	0	75	175	325	425	500	nm	nm	nm	nm
Frexalimab (MS)	0	0	0	0	0	0	0	0	150	350	650	850	1,000	nm	nm	nm	nm	nm
<b>Vaccines - marketed</b>	<b>7,228</b>	<b>1,167</b>	<b>1,223</b>	<b>2,961</b>	<b>1,560</b>	<b>6,911</b>	<b>6,738</b>	<b>6,944</b>	<b>7,156</b>	<b>7,385</b>	<b>7,621</b>	<b>7,866</b>	<b>8,121</b>	<b>8,384</b>	<b>14</b>	<b>-4</b>	<b>-3</b>	<b>3</b>
<b>Vaccines incl pipeline</b>	<b>7,228</b>	<b>1,167</b>	<b>1,223</b>	<b>3,098</b>	<b>1,956</b>	<b>7,444</b>	<b>7,820</b>	<b>8,444</b>	<b>8,956</b>	<b>9,460</b>	<b>10,221</b>	<b>11,054</b>	<b>12,071</b>	<b>12,884</b>	<b>14</b>	<b>3</b>	<b>5</b>	<b>7</b>
Polio/ Pertussis /Hib Vaccines	2,285	537	617	577	387	2,118	2,103	2,152	2,213	2,293	2,377	2,465	2,558	2,656	6	-7	-1	3
Seasonal flu	2,977	63	99	1,766	767	2,695	2,695	2,776	2,859	2,945	3,033	3,124	3,218	3,314	13	-9	0	3
Meningitis, Travel and other Endemics Vaccines	1,213	249	270	409	224	1,152	1,197	1,246	1,287	1,325	1,364	1,404	1,445	1,488	nm	-5	4	3
Adult Booster	587	124	150	185	152	611	638	663	685	708	730	751	774	797	20	4	4	3
Other Vaccines	166	194	87	24	30	335	105	108	111	115	118	122	125	129	100	102	-69	3
<b>Total Biopharma Sales</b>	<b>37,812</b>	<b>8,727</b>	<b>8,740</b>	<b>10,719</b>	<b>9,493</b>	<b>37,688</b>	<b>38,900</b>	<b>41,941</b>	<b>44,956</b>	<b>47,584</b>	<b>50,700</b>	<b>53,509</b>	<b>56,428</b>	<b>58,906</b>	<b>16</b>	<b>-0</b>	<b>3</b>	<b>7</b>
<b>Consumer health care</b>	<b>5,185</b>	<b>1,495</b>	<b>1,225</b>	<b>1,245</b>	<b>1,276</b>	<b>5,241</b>	<b>5,722</b>	<b>5,999</b>	<b>6,238</b>	<b>6,453</b>	<b>6,646</b>	<b>6,846</b>	<b>7,051</b>	<b>7,263</b>	<b>16</b>	<b>1</b>	<b>9</b>	<b>3</b>
Allergy	770	276	170	176	160	782	792	816	840	860	882	905	925	938	nm	2	1	3
Cough and Cold	478	145	111	131	128	515	535	551	566	583	600	615	632	654	nm	8	4	3
Pain Care	1,140	306	253	272	283	1,114	1,138	1,165	1,193	1,220	1,246	1,272	1,305	1,313	nm	-2	2	2
Digestive Wellness	1,449	425	389	366	335	1,515	1,707	1,850	1,967	2,063	2,138	2,221	2,301	2,394	nm	5	13	5
Physical and Mental Wellness	567	154	143	127	120	544	559	576	594	612	630	648	667	705	nm	-4	3	3
Personal Care	586	150	126	136	142	554	539	558	575	595	612	630	651	671	nm	-5	-3	3
Non-Core / Others	195	39	32	36	40	147	153	160	165	168	172	173	174	176	nm	-24	4	3
<b>Group Sales</b>	<b>42,997</b>	<b>10,222</b>	<b>9,965</b>	<b>11,964</b>	<b>10,770</b>	<b>42,930</b>	<b>44,622</b>	<b>47,939</b>	<b>51,195</b>	<b>54,037</b>	<b>57,347</b>	<b>60,355</b>	<b>63,479</b>	<b>66,168</b>	<b>14</b>	<b>-0</b>	<b>4</b>	<b>6</b>

Source: BoFA Global Research Estimates, company reports

BoFA GLOBAL RESEARCH

## Exhibit 5: Sanofi Profit & Loss Model

P/L forecasts, % changes, 24-27E CAGRs

Year to December (€m)	2022A	1Q 23A
-----------------------	-------	--------

**Exhibit 5: Sanofi Profit & Loss Model**

P/L forecasts, % changes, 24-27E CAGRs

															Change YoY %			CAGR
Other Revenues	2,392	641	717	734	898	2,990	2,452	2,501	2,501	2,501	2,501	2,551	2,602	2,654	69	25	-18	0
COGS	-13,692	-3,079	-3,263	-3,840	-3,641	-13,823	-13,699	-14,190	-14,642	-15,184	-15,942	-16,658	-17,393	-17,998	12	1	-1	4
% of sales	31.8	30.1	32.7	32.1	33.8	32.2	30.7	29.6	28.6	28.1	27.8	27.6	27.4	27.2				
<b>Gross profit</b>	<b>31,697</b>	<b>7,784</b>	<b>7,419</b>	<b>8,858</b>	<b>8,026</b>	<b>32,096</b>	<b>33,375</b>	<b>36,250</b>	<b>39,054</b>	<b>41,353</b>	<b>43,905</b>	<b>46,248</b>	<b>48,688</b>	<b>50,825</b>	18	1	4	7
Margin %	73.7	76.1	74.5	74.0	74.5	74.8	74.8	75.6	76.3	76.5	76.6	76.6	76.7	76.8				
S,G&A	-10,492	-2,607	-2,575	-2,579	-2,843	-10,604	-10,531	-10,547	-10,700	-11,024	-11,469	-11,890	-12,315	-12,837	10	1	-1	3
% of sales	24.4	25.5	25.8	21.6	26.4	24.7	23.6	22.0	20.9	20.4	20.0	19.7	19.4	19.4				
R&D	-6,706	-1,563	-1,630	-1,663	-1,798	-6,654	-7,363	-7,383	-7,577	-7,727	-8,029	-8,450	-8,887	-9,264	18	-1	11	3
% of sales	15.6	15.3	16.4	13.9	16.7	15.5	16.5	15.4	14.8	14.3	14.0	14.0	14.0	14.0				
Other current operating income/expenses	-1,514	-304	-501	-598	-765	-2,168	-2,872	-3,550	-4,561	-5,325	-5,456	-5,575	-5,701	-5,811	60	43	33	15
Other current operating income	1,451	436	181	388	127	1,132	1,010	937	988	1,110	1,357	1,577	1,765	1,992	69	-22	-11	13
Other current operating expenses	-2,965	-740	-682	-986	-892	-3,300	-3,882	-4,487	-5,549	-6,434	-6,813	-7,152	-7,466	-7,804	64	11	18	15
Of which REGN Mab collaboration payaways	-2,367	-674	-744	-889	-901	-3,208	-3,807	-4,429	-5,500	-6,391	-6,777	-7,121	-7,440	-7,792	66	36	19	15
Associates, post-tax	88	33	22	20	24	99	99	99	99	99	99	99	99	99	126	12	0	0
Minority interests	-33	-10	-9	-10	-7	-36	-36	-36	-36	-36	-36	-36	-36	-36	-41	10	0	0
<b>Business Operating Income</b>	<b>13,040</b>	<b>3,333</b>	<b>2,726</b>	<b>4,028</b>	<b>2,637</b>	<b>12,733</b>	<b>12,672</b>	<b>14,833</b>	<b>16,279</b>	<b>17,340</b>	<b>19,014</b>	<b>20,395</b>	<b>21,847</b>	<b>22,975</b>	22	-2	-0	9
Margin %	30.3	32.6	27.4	33.7	24.5	29.7	28.4	30.9	31.8	32.1	33.2	33.8	34.4	34.7				
Net Financial Income	-234	-7	-42	-83	-45	-177	-186	-74	1	181	392	639	1,018	697	-29	-24	5	-274
<b>Bus income before tax, assoc &amp; min int</b>	<b>12,751</b>	<b>3,303</b>	<b>2,671</b>	<b>3,935</b>	<b>2,576</b>	<b>12,494</b>	<b>12,424</b>	<b>14,696</b>	<b>16,218</b>	<b>17,459</b>	<b>19,343</b>	<b>20,972</b>	<b>22,803</b>	<b>23,610</b>	23	-2	-1	10
Business Income tax expense	-2,465	-627	-507	-749	-491	-2,374	-2,609	-3,086	-3,406	-3,666	-4,062	-4,404	-4,789	-4,958	13	-4	10	10
Business Income tax rate (%)	19.3	19.0	19.0	19.0	19.1	19.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	-7	-2	11	0
<b>Business Net Income</b>	<b>10,341</b>	<b>2,699</b>	<b>2,177</b>	<b>3,196</b>	<b>2,101</b>	<b>10,182</b>	<b>9,877</b>	<b>11,672</b>	<b>12,874</b>	<b>13,855</b>	<b>15,344</b>	<b>16,630</b>	<b>18,077</b>	<b>18,714</b>	26	-2	-3	10
Margin %	24.1	26.4	21.8	26.7	19.5	23.7	22.1	24.3	25.1	25.6	26.8	27.6	28.5	28.3				
Other Intangibles amortisation	-2,588	-489	-546	-562	-1,077	-2,674	-2,053	-2,053	-2,053	-2,053	-2,053	-2,053	-2,053	-2,053				
Dividends	4,484	0	0	0	0	4,619	4,758	4,900	5,047	5,199	5,355	5,515	5,681	5,851				3
D&A	3,195	800	800	800	800	3,199	3,250	3,305	3,367	3,434	3,507	3,586	3,671	3,761	21	0	2	2
Other Associates (pre-tax)	0	0	0	0	0	0	0	0	0	0	0	0	0	0				nm
EBIT	10,765	2,504	1,886	3,236	1,402	9,037	8,978	11,139	12,585	13,646	15,320	16,702	18,154	19,282	32	-16	-1	11
Margin %	25.0	24.5	18.9	27.0	13.0	21.0	20.1	23.2	24.6	25.3	26.7	27.7	28.6	29.1				
EBITDA	13,960	3,303	2,686	4,035	2,202	12,235	12,228	14,444	15,952	17,081	18,828	20,288	21,825	23,043	29	-12	-0	9
Margin %	32.5	32.3	27.0	33.7	20.4	28.5	27.4	30.1	31.2	31.6	32.8	33.6	34.4	34.8				
<b>Per share data</b>																		
Basic shares, avg (m)	1,252	1,249	1,251	1,253	1,252	1,251	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	-0	-0	1	0
Diluted shares, avg (m)	1,257	1,255	1,256	1,259	1,257	1,257	1,265	1,265	1,265	1,265	1,265	1,265	1,265	1,265	-0	-0	1	0
<b>Business (Core) EPS</b>	<b>8.26</b>	<b>2.16</b>	<b>1.74</b>	<b>2.55</b>	<b>1.68</b>	<b>8.14</b>	<b>7.84</b>	<b>9.27</b>	<b>10.22</b>	<b>11.00</b>	<b>12.18</b>	<b>13.20</b>	<b>14.35</b>	<b>14.86</b>	<b>26</b>	<b>-1</b>	<b>-4</b>	<b>10</b>
GAAP EPS (basic)	6.69	1.60	1.15	2.01	1.07	5.83	5.66	7.09	8.05	8.83	10.02	11.04	12.19	12.70	35	-13	-3	12
DPS	3.56					3.67	3.78	3.89	4.01	4.13	4.25	4.38	4.51	4.64	7	3	3	3

Source: BofA Global Research Estimates, company reports

BofA GLOBAL RESEARCH

## Price objective basis & risk

### Sanofi (SNYNF / SNY)

Our PO of EUR122 (US\$65) is based on c13x 25E PE, which is a c20% discount to our target sector PE despite faster growth (c10% 25-28E EPS CAGR vs sector c7%) due to recognition that PIII pipeline catalysts are needed to re-rate the stock further, with a quieter near-term pipeline data path.

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 currency and positive EPS momentum driven by Dupixent, product launches and cost savings, pipeline success.

Downside risks to our PO are downward trends in diversified growth drivers, adverse currency moves, litigation (including Zantac), pipeline failure, failure to execute on product launches, competition or further pricing risk to key franchises, regulatory changes and pricing pressure.

## Analyst Certification

I, Graham Parry, 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
	Lonza AG	LZAGF	LONN SW	Charlie Haywood
	Lonza AG	LZAGY	LZAGY US	Charlie Haywood
	Merck KGaA	MKGAF	MRK GY	Sachin Jain, CFA
	Merck KGaA	MKKGY	MKKGY US	Sachin Jain, CFA
	Novartis	NVSEF	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
	Sartorius AG	SUVPF	SRT3 GY	Charlie Haywood
<b>NEUTRAL</b>				
	H. Lundbeck A/S	HLUKF	HLUNB DC	Sachin Jain, CFA
	Idorsia	IDRSF	IDIA SW	Sachin Jain, CFA
	Ipsen	IPSEF	IPN FP	Sachin Jain, CFA
	Roche Holdings	RHHBF	ROG SW	Sachin Jain, CFA
	Roche Holdings	RHHBY	RHHBY US	Sachin Jain, CFA

## EMEA - Pharma &amp; Biotech Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>UNDERPERFORM</b>	Bayer	BAYZF	BAYN GY	Sachin Jain, CFA
	Bayer	BAYRY	BAYRY US	Sachin Jain, CFA
	GSK Plc	GSK	GSK US	Graham Parry
	GSK Plc	GLAXF	GSK LN	Graham Parry
	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 valuations. 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.

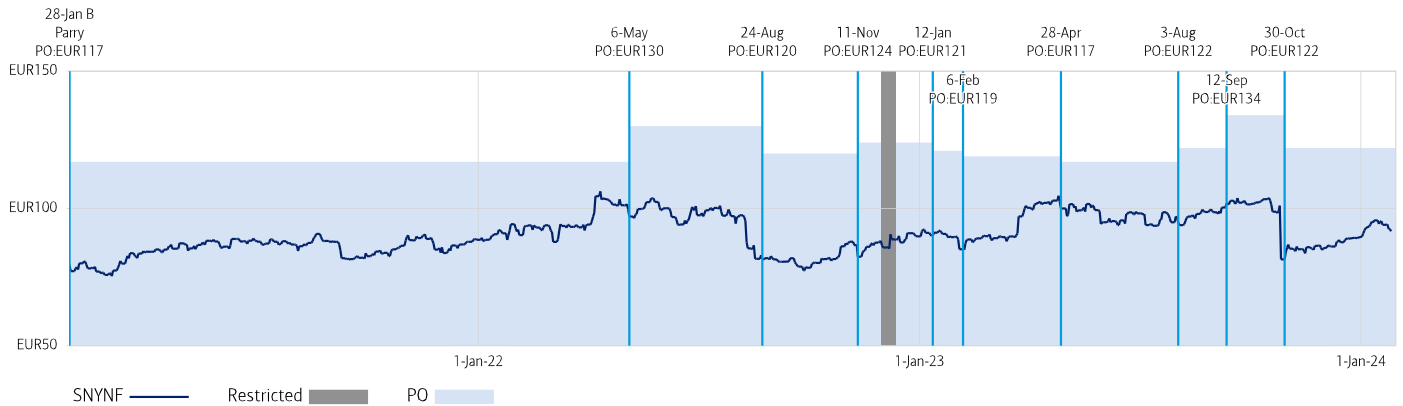
**iQprofile<sup>SM</sup>**, **iQmethod<sup>SM</sup>** are service marks of Bank of America Corporation. **iQdatabase<sup>®</sup>** is a registered service mark of Bank of America Corporation.



# Disclosures

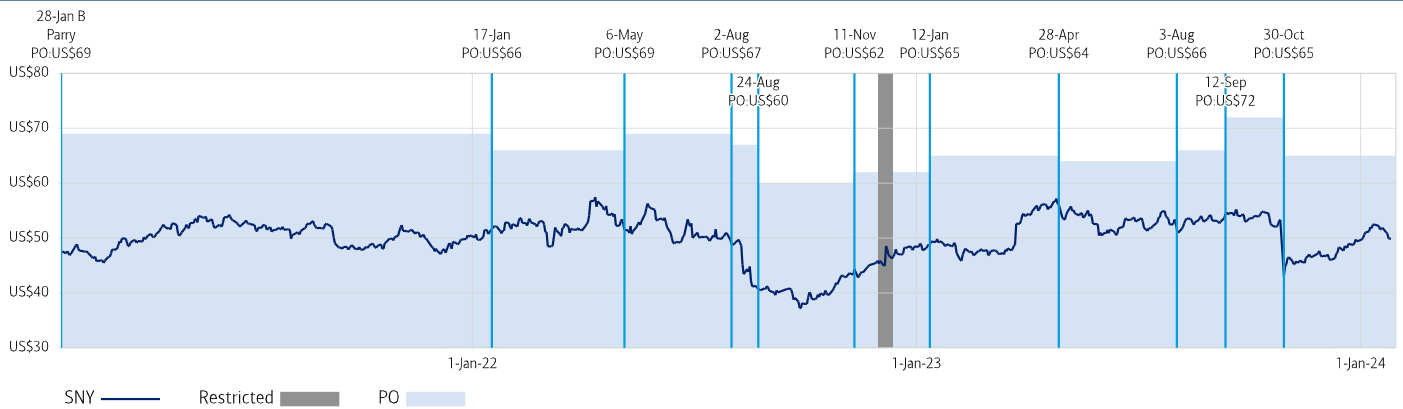
## Important Disclosures

### Sanofi (SNYNF) Price Chart



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.

### Sanofi (SNY) Price Chart



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: Sanofi. The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Sanofi. BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Sanofi. The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Sanofi. BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Sanofi. BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Sanofi. BofAS together with its affiliates beneficially owns one percent or more of the common stock of this issuer. If this report was issued on or after the 9th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 9th day of a month reflect the ownership position at the end of the second month preceding the date of the report: Sanofi. BofAS or one of its affiliates is willing to sell to, or buy from, clients the common equity of the issuer on a principal basis: Sanofi. The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Sanofi. BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits. Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks. The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents. Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments. Refer to [BofA Global Research policies relating to conflicts of interest](#). **"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.**

**Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:** BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at [www.bofam.com/BofASEdisclaimer](#); BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority. This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request;



has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSCF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

#### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### BofA ESGMeter Methodology:

ESGMeter is a proprietary metric based on quantitative analysis and fundamental analyst inputs that reflects our assessment of a company's Environmental, Social and Governance-related attributes. The ESGMeter is intended to indicate a company's likelihood of experiencing stronger financial stability (higher return on equity and lower earnings and price volatility) over the next three years relative to peer group. There are three ESGMeter levels - Low, Medium, and High - which indicate whether a company has attributes most likely to translate into superior financial stability (in the case of a High level) or weaker financial stability (in the case of a Low level) over the next three years relative to its peer group. A Medium level suggests that a company exhibits ESG characteristics that are likely associated with financial stability results in line with its peer group over the next three years. Full details of our methodology, financial stability definition and disclaimers are available at [BofA ESGMeter methodology](#). ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating.

ESGMeter is independent of the BofA Global Research fundamental equity analyst's investment rating, volatility risk rating, income rating or price objective for that company.

#### Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQDatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and

employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS or any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.