

Eli Lilly and Company

Can you take me higher? PO to \$1000

Reiterate Rating: BUY | PO: 1,000.00 USD | Price: 753.68 USD

Lilly PO to \$1000 on continued diabetes + obesity upside

Lilly remains a favorite name in our Biopharma coverage, even with strong YTD performance (+29%; DRG index: +10%), based on peer-leading revenue growth, margin expansion, and a compelling pipeline. While investors clearly recognize the commercial opportunity for Mounjaro (diabetes) and Zepbound (obesity), we'd argue that additional opportunities in heart disease (HFpEF; phase 3), obstructive sleep apnea (OSA; phase 3), and liver disease (NASH; phase 2) are vastly underappreciated. Indeed, we've added these commercial opportunities to our Lilly model as well as the next-gen GLP-1 oral (orforglipron), which elevates our PO for Lilly to \$1000 (from \$800). We're maintaining a Buy rating as we expect continued strength in shares given a scarcity of high growth stories in Healthcare—we forecast a 5-year CAGR for rev/ EPS of +21% (+2% cons)/ +46% (+5% cons)—along with upward commercial momentum throughout 2024.

Tirzepatide sales could top \$60B in 2030

Following the addition of label expansions for tirzepatide, we now forecast sales growing to >\$60B in 2030 (from \$15B in 2024). Moreover, when we include next-gen assets, oral (orforglipron; phase 3) and GGG agonist (retatrutide; phase 3), we see global sales for the assets at >\$80B in 2030. We acknowledge there's wood to chop on access/manufacturing capacity, but we'd argue our forecasts are still conservative, as by 2030, we assume <7% of US adults will be on a GLP-1 for obesity (includes competitors).

Competition is key, but a wide commercial moat for Lilly

While we've seen a slew of new pipeline assets in the incretin space—some with robust clinical results—based on our prescriber discussions, we still see substantial commercial moats that should shape market dynamics. Indeed, we suspect investors discount Lilly + Novo's (covered by Jain + Parry) substantial expertise in the space, which together with a lack of available manufacturing capacity, create very high competitive hurdles.

Neuroscience, oncology and I&I are additive

Given the robust P&L impact of Lilly's GLP-1 portfolio, its neuroscience, oncology, and I&I segments seem less impactful. That said, these other segments add diversification + optionality and for oncology / I&I, we see an impressive +16% 5-year CAGR.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	7.94	6.32	12.70	18.05	26.10
GAAP EPS	6.90	5.80	12.37	17.78	25.83
EPS Change (YoY)	7.4%	-20.4%	100.9%	42.1%	44.6%
Consensus EPS (Bloomberg)			12.51	17.99	24.30
DPS	3.88	4.47	5.14	5.91	6.80
Valuation (Dec)					
P/E	94.9x	119.3x	59.3x	41.8x	28.9x
GAAP P/E	109.2x	129.9x	60.9x	42.4x	29.2x
Dividend Yield	0.5%	0.6%	0.7%	0.8%	0.9%
EV / EBITDA*	86.1x	93.3x	47.4x	34.9x	24.7x
Free Cash Flow Yield*	0.7%	0.1%	1.3%	1.9%	2.8%

* For full definitions of *IQmethod*SM measures, see page 11.

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Timestamp: 01 March 2024 05:00AM EST

01 March 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	800.00	1,000.00
2024E Rev (m)	43,948.7	43,913.7
2025E Rev (m)	51,908.5	52,450.3
2026E Rev (m)	62,693.6	64,584.2
2024E EPS	13.05	12.70
2025E EPS	17.90	18.05
2026E EPS	24.95	26.10
2024E EBITDA (m)	15,654.7	15,696.8
2025E EBITDA (m)	20,909.1	21,369.2
2026E EBITDA (m)	28,599.4	30,191.2
2024E DPS	5.12	5.14

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Stock Data

Price	753.68 USD
Price Objective	1,000.00 USD
Date Established	1-Mar-2024
Investment Opinion	B-1-7
52-Week Range	309.20 USD - 794.47 USD
Mkt Val (mn) / Shares Out (mn)	716,120 USD / 950.2
Free Float	89.4%
Average Daily Value (mn)	2575.19 USD
BoFA Ticker / Exchange	LLY / NYS
Bloomberg / Reuters	LLY US / LLY.N
ROE (2024E)	81.8%
Net Dbt to Eqty (Dec-2023A)	205.2%
ESGMeter™	High

iQprofileSM Eli Lilly and Company

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	18.6%	14.2%	26.7%	30.7%	33.5%
Return on Equity	73.2%	53.3%	81.8%	72.0%	64.5%
Operating Margin	25.0%	18.9%	31.3%	36.3%	42.3%
Free Cash Flow	5,230	793	9,540	13,253	19,823

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.0x	0.7x	1.2x	1.1x	1.1x
Asset Replacement Ratio	1.2x	2.3x	2.3x	2.3x	2.3x
Tax Rate	8.3%	20.1%	14.0%	14.0%	14.0%
Net Debt-to-Equity Ratio	130.2%	205.2%	107.7%	43.3%	-0.3%
Interest Cover	22.2x	20.7x	12.0x	25.9x	50.9x

Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	28,541	34,124	43,914	52,450	64,584
% Change	0.8%	19.6%	28.7%	19.4%	23.1%
Gross Profit	21,912	27,042	34,911	41,698	51,344
% Change	4.3%	23.4%	29.1%	19.4%	23.1%
EBITDA	8,650	7,985	15,697	21,369	30,191
% Change	9.4%	-7.7%	96.6%	36.1%	41.3%
Net Interest & Other Income	(321)	97	(729)	(316)	(115)
Net Income (Adjusted)	7,186	5,713	11,481	16,327	23,626
% Change	6.7%	-20.5%	101.0%	42.2%	44.7%

Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	6,245	5,240	11,182	16,087	23,380
Depreciation & Amortization	1,523	1,527	1,965	2,348	2,891
Change in Working Capital	(15)	(3,055)	(1,572)	(1,997)	(2,838)
Deferred Taxation Charge	NA	NA	NA	(1,370)	(1,948)
Other Adjustments, Net	(668)	527	2,402	3,485	4,863
Capital Expenditure	(1,854)	(3,448)	(4,437)	(5,299)	(6,525)
Free Cash Flow	5,230	793	9,540	13,253	19,823
% Change	-12.1%	-84.8%	NM	38.9%	49.6%
Share / Issue Repurchase	(1,500)	(750)	0	0	0
Cost of Dividends Paid	(3,536)	(4,069)	(4,647)	(5,349)	(6,157)
Change in Debt	(62)	8,650	(4,761)	983	0

Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	2,212	2,928	1,724	9,268	21,582
Trade Receivables	6,896	9,091	11,698	13,973	17,205
Other Current Assets	8,927	13,709	16,906	19,756	23,807
Property, Plant & Equipment	10,144	12,914	16,263	20,263	25,189
Other Non-Current Assets	21,311	25,366	27,188	28,652	30,465
Total Assets	49,490	64,006	73,779	91,912	118,248
Short-Term Debt	1,501	6,905	6,191	6,191	6,191
Other Current Liabilities	15,637	20,389	26,113	30,641	37,078
Long-Term Debt	14,738	18,321	14,274	15,257	15,257
Other Non-Current Liabilities	6,839	7,529	9,803	11,687	14,364
Total Liabilities	38,714	53,143	56,381	63,776	72,889
Total Equity	10,775	10,864	17,398	28,136	45,359
Total Equity & Liabilities	49,490	64,006	73,779	91,912	118,248

* For full definitions of iQmethodSM measures, see page 11.

Company Sector

Pharmaceuticals

Company Description

Eli Lilly (LLY) is a large diversified biopharmaceutical company developing drugs for the treatment of a variety of disorders, including: diabetes, migraine, cancer, and a range of inflammatory skin conditions, among others. Lilly has been in the business of developing drugs for more than 140 years, during which time the Company has retained focus almost exclusively on pharmaceuticals.

Investment Rationale

Lilly's young product cycle offers a growth profile that should remain differentiated versus peers on both revenue and non-GAAP EPS. We remain bullish on Lilly's key value drivers, Mounjaro, Trulicity and Jardiance, with Taltz (psoriasis), Emgality (migraine), and Verzenio (breast cancer) supporting additional growth. Overall, we view the risk / reward profile in Lilly as compelling with high quality, differentiated growth and modest expectations for added pipeline value.

Stock Data

Average Daily Volume 3,416,823

Quarterly Earnings Estimates

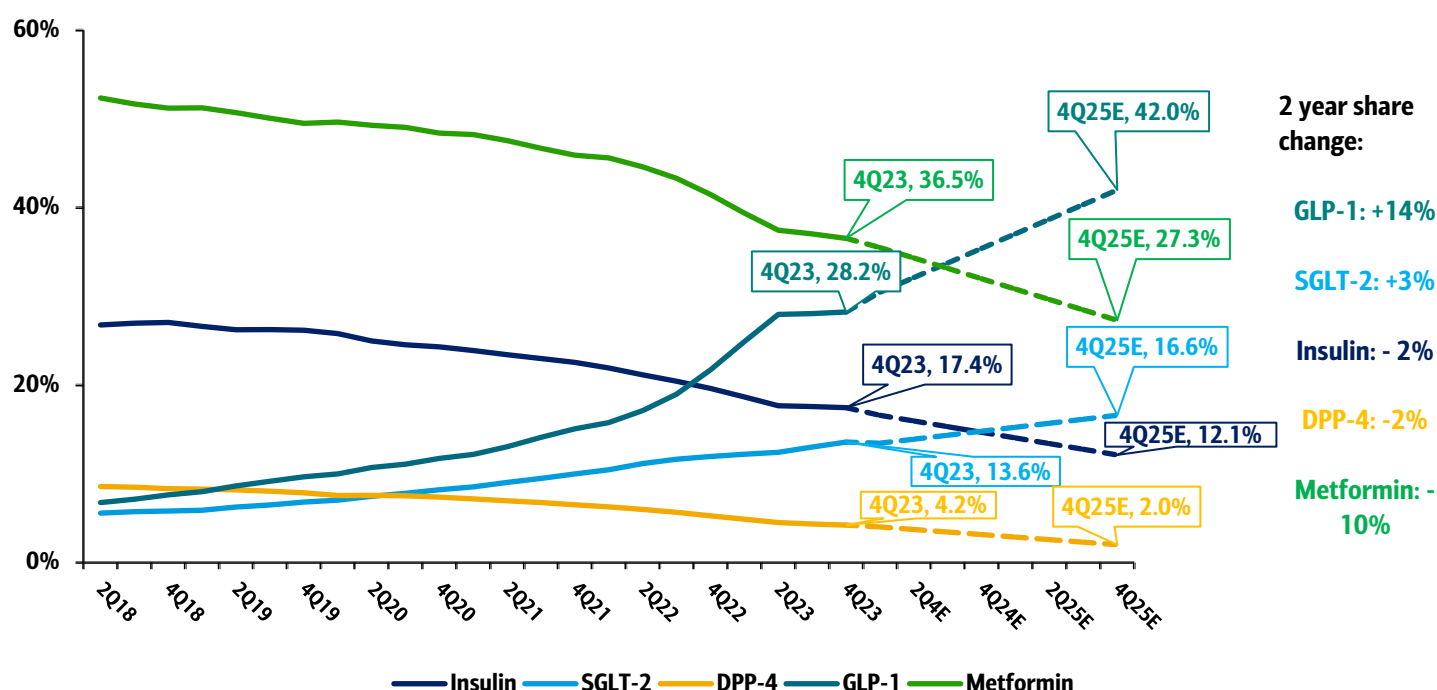
	2023	2024
Q1	1.62A	2.73E
Q2	2.11A	2.82E
Q3	0.10A	3.64E
Q4	2.49A	3.16E

GLP-1s have more room to run

Lilly has been our favorite name for quite some time based on the clinical + commercial successes for its new product cycle, particularly with Mounjaro (Type 2 diabetes) + Zepbound (obesity) and a strong management team. While Mounjaro's (GLP-1 and GIP agonist) launch in Type 2 diabetes has been unprecedented in terms of uptake, we see room for the entire GLP-1 class to gain market share. Indeed, based on our channel checks, we suspect GLP-1s will continue to see share gains as supply constraints ease + physicians recognize the benefits of GLP-1s beyond HbA1c lowering (e.g., lowering of lipids and cardiovascular risk, improvements in liver and kidney health). In fact, by 2025, we expect GLP-1s could become the share leader in Type 2 diabetes treatment, particularly as the American Diabetes Association (ADA) has acknowledged the benefits of using GLP-1s in earlier lines of treatment + in patients with comorbidities (e.g., liver disease, heart disease and chronic kidney disease; Exhibit 1).

Exhibit 1: GLP-1 could become the share leader in Type 2 diabetes by 2025

GLP-1s continue to gain market share over competitors given additional health benefits



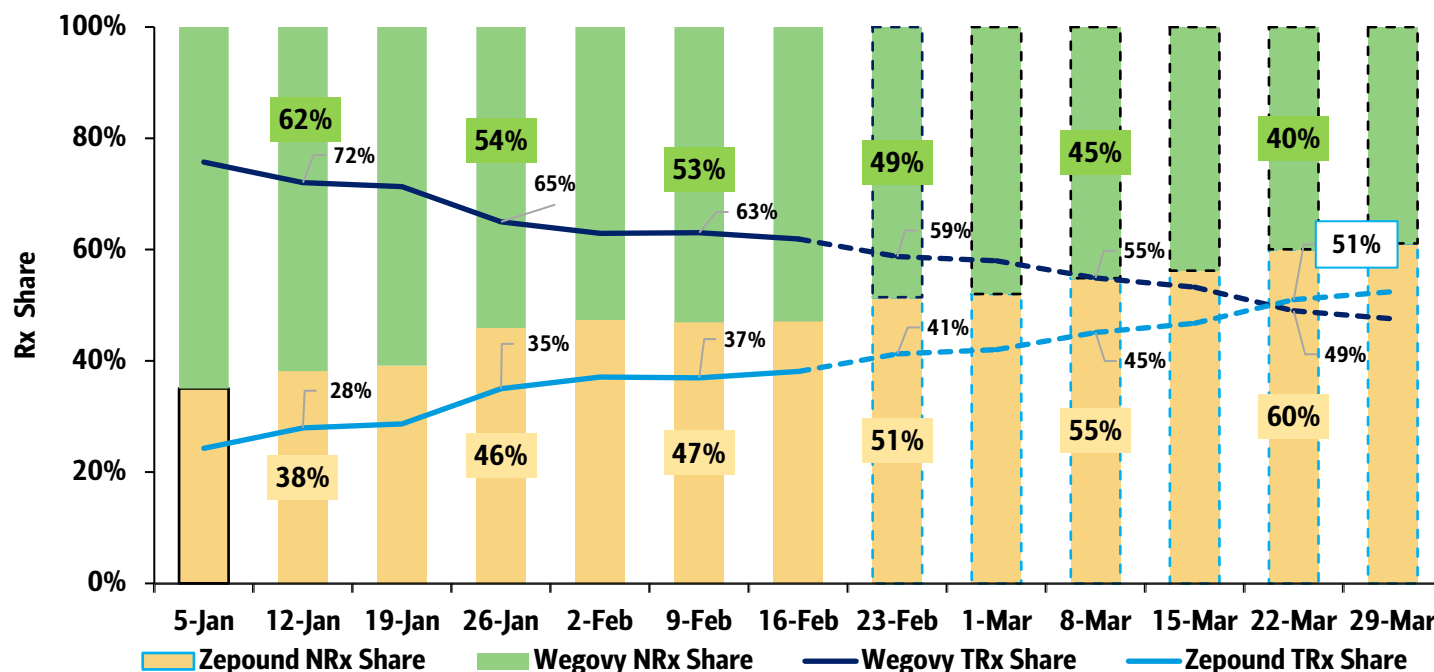
Source: BofA Global Research, IQVIA, dash lines represent forecasts, SGLT-2: sodium-glucose transport protein 2, DPP-4: Dipeptidyl peptidase 4, GLP-1: glucagon like peptide 1

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Moreover, based on script trends, we suspect Zepbound could be the share leader in obesity by 2Q24 (Exhibit 2). Indeed, Zepbound's launch has been robust with the highest adoption of any GLP-1 through its first 14 weeks, which speaks to its impressive efficacy + tolerability profile, in our view. In our discussions with key opinion leaders (KOLs), they are quick to point out Zepbound's superior efficacy and tolerability versus Novo's Ozempic, which bolsters our confidence in Zepbound's continued success. But that said, the best drug is the one that's commercially available and accessible according to our KOLs. So, manufacturing capacity and commercial access are likely to impact the share split between Zepbound and Wegovy in the near-term.

Exhibit 2: Zepbound could be the share leader in obesity by the end of 2Q24

Zepbound continues to gain share from Novo's Wegovy



Source: BofA Global Research, IQVIA, dashed lined represent forecasts, RX: prescription, NRx: new prescription, TRx: total prescriptions

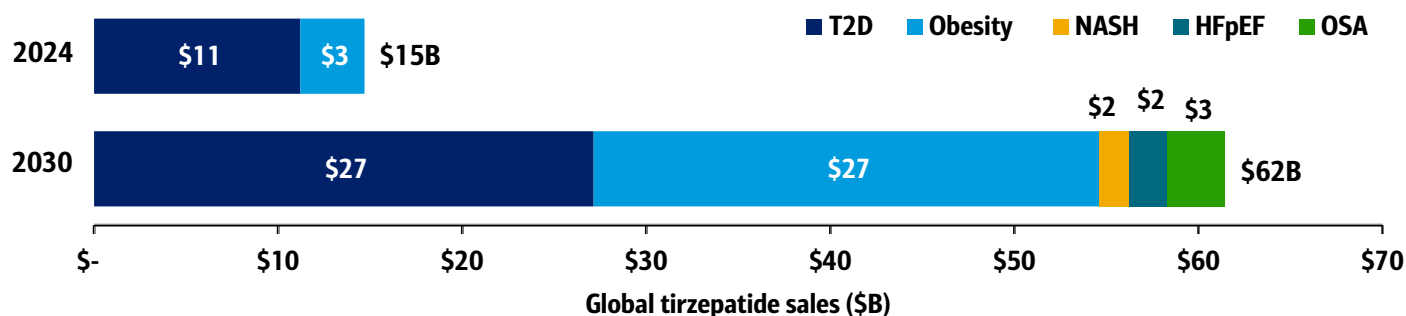
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Tirzepatide sales could be >\$60B by 2030

We often get asked the question “what’s not baked into LLY shares at current levels”, with one of the bigger debates from investors being—do Mounjaro (Type 2 diabetes) and Zepbound (obesity) sales need to exceed \$40B in 2030 for the stock to work. We’re of the opinion that as we get closer to the back half of the decade 1) margin expansion, 2) label expansions for tirzepatide (e.g., liver disease (NASH; phase 2 top-line results published), heart disease (HFpEF; phase 3 results in mid-24), and obstructive sleep apnea (OSA; phase 3 results in late spring), and 3) next-generation assets such as orforglipron (oral GLP-1) and retatrutide (GGG tri-agonist), will come into focus and offset concerns on tirzepatide growth (see [our Lilly NPV analysis here](#)). That said, we see tirzepatide meaningfully scaling from 2024 to 2030 and following the addition of liver disease, heart disease, and OSA to our model, we now forecast global sales of >\$60B in 2030 (a 4x increase; Exhibit 3). However, the majority of global sales still come from Type 2 diabetes (Exhibit 5) + obesity (Exhibit 6) with minimal OUS contribution.

Exhibit 3: Tirzepatide sales could be >\$60B by 2030

We expect tirzepatide’s global sales to increase 4x from 2024 to 2030



Source: BofA Global Research, NASH: Nonalcoholic steatohepatitis, HFpEF: Heart failure with preserved ejection fraction, OSA: obstructive sleep apnea, T2D: type 2 diabetes

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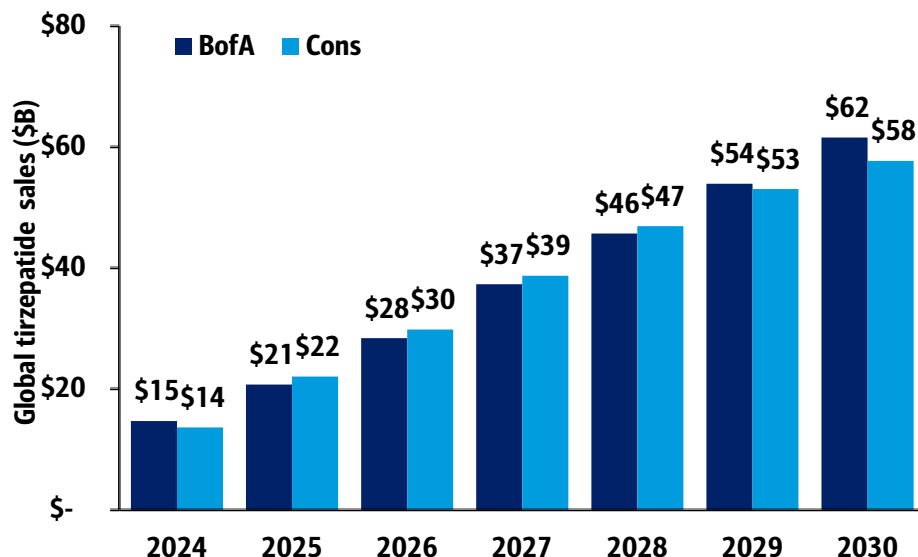


How do our forecasts stack up against the Street?

Based on prescription trends (Exhibits 1 and 2), we remain bullish on the ability of Mounjaro + Zepbound to maintain robust launches, which is why we're marginally higher than the Street in 2024 (Exhibits 4, 5, and 6). As we look to the middle of the decade, we expect Lilly to launch tirzepatide in heart disease (HFpEF) and OSA in 2025, while we expect a liver disease (NASH) launch in 2028 based on clinical development timelines + our discussions with management. In contrast to our forecasts, the Street models a launch in OSA in 2024 and heart + liver disease in 2025. However, looking to 2029/2030, once the launches have scaled, we are +\$1B and +\$4B higher than the Street, respectively (Exhibit 4).

Exhibit 4: Global tirzepatide (T2D, obesity, NASH, HFpEF, and OSA) sales forecasts

Tirzepatide sales are driven by Mounjaro (T2D) and Zepbound (obesity)

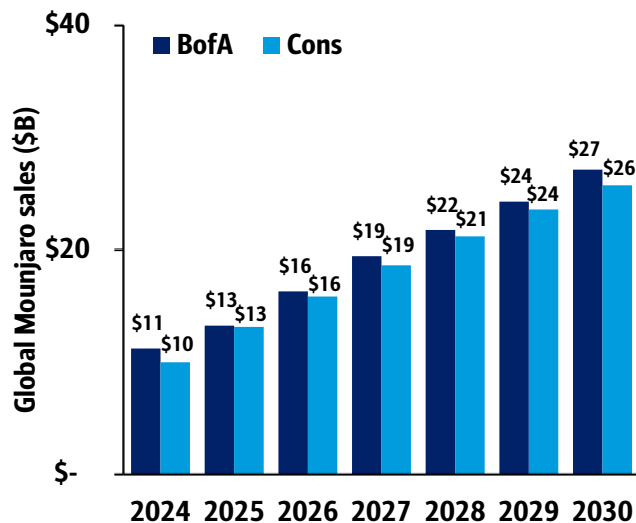


Source: BofA Global Research, VisibleAlpha

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Exhibit 5: Global Mounjaro (T2D) sales forecasts

We're modestly higher than the Street in the back half of the decade

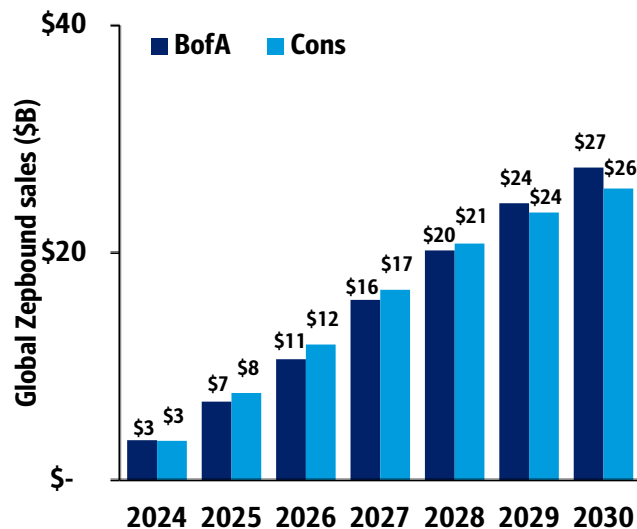


Source: BofA Global Research, VisibleAlpha

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Exhibit 6: Global Zepbound (obesity) sales forecasts

We're modestly higher than the Street in 2030



Source: BofA Global Research, VisibleAlpha

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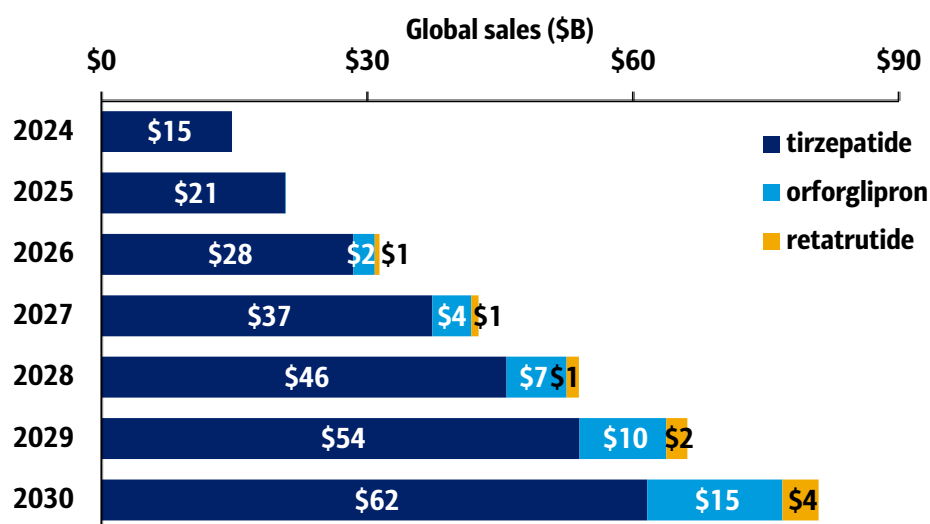


Next-generation assets add optionality

While competition in the endocrinology space has heated up (Exhibit 8), especially in obesity, we'd argue that Lilly's next-generation assets—oral GLP-1 (orforglipron, phase 3) and GGG agonist (retatrutide, phase 3)—provide differentiation and optionality. Indeed, while most competitors are targeting the efficacy + tolerability profile of Lilly's Zepbound and Novo's Wegovy, both companies have made meaningful headway to create differentiated assets with long IP. We now include forecasts for Lilly's oral in obesity + Type 2 diabetes and its GGG agonist for obesity in our model and together with tirzepatide, we see global sales of the three assets at >\$80B in 2030 (Exhibit 7). Moreover, given Lilly's significant CapEx + OpEx investments into its incretin portfolio, we've lowered our WACC for the pipeline (e.g., tirzepatide's label expansion opportunities, its oral, and GGG agonist) to 8% (from 9%).

Exhibit 7: Global sales of Lilly's tirzepatide, oral (orforglipron) and GGG agonist (retatrutide) could be >\$80B by 2030

Orforglipron and retatrutide add optionality to Lilly's endocrinology franchise



Source: BofA Global Research

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Multiple new entrants in obesity, but we see competitive moats

Given the recent clinical successes of new entrants in Type 2 diabetes and obesity, there's been concerns on market dynamics given it's currently a duopoly between Lilly and Novo (Exhibit 8). Admittedly, recent results from competitors look compelling. But in our prescriber channel checks + our discussions with management teams, we gleaned a few nuances. First and foremost, we can't discount both Lilly and Novo's substantial expertise in the sector, which is defined by relationships with payers + prescribers and the clinical knowledge to quickly move assets through development. Next, we expect manufacturing ability to become a competitive moat, as even with Lilly and Novo's robust CapEx investments into manufacturing, there are still supply constraints. Moreover, we don't just expect manufacturing to remain an overhang for new entrants, but also generic entrants for tirzepatide + semaglutide. Finally, as mentioned above, the majority of new entrants are targeting efficacy + tolerability profiles to match Zepbound + Wegovy, while Lilly and Novo are already working on next-generation assets with orforglipron/ retatrutide and CagriSema/ amycretin, respectively.

Exhibit 8: Given the unprecedented TAM, it's not surprising there are multiple new entrants in the obesity space

We've highlighted select competitors in the obesity landscape below

Company	Drug	MoA / Target	Development Stage	Admin	Catalyst
Amgen (AMGN)	AMG133	Multi-specific GIPR antagonist/GLP-1 receptor agonist	Phase 2	SC, once monthly	Results 2H24
Amgen (AMGN)	AMG786	Undisclosed (non-incretin-based therapy)	Phase 1	Oral	Results 1H24
AstraZeneca (AZN) + Ecogene	ECC5004	GLP-1 receptor agonist	Phase 1	Oral	Phase 1 results in management's hands by 2023, results at an upcoming medical conference; Phase 2 planned 2024
AstraZeneca (AZN)	AZD6234	Long-acting amylin	Phase 1	SC/ IV monthly	Primary completion October 2023
AstraZeneca (AZN)	AZD9550	GLP- receptor and glucagon agonist	Phase 1	SC, once weekly	TBD
Pfizer (PFE)	danuglipron (PF-06882961)	Oral GLP-1 agonist	Phase 2	Oral, once daily	PK study of once-daily formulation in 1H24
Roche (RHHBY)/ Carmot	CT-388	GLP-1/ GIP receptor agonist	Phase 1/2	SC, once weekly	Final phase 1 results; will initiate phase 2 in 2024
Roche (RHHBY) / Carmot	CT-996	GLP-1 receptor agonist	Phase 1	Oral	Phase 1 interim data
Structure Therapeutics (GPCR)	GGBR-1290	GLP-1R agonist	Phase 2a/2b	Oral	Phase 2a obesity data 2Q24; Initiate phase 2b in 2H24 (275 pts, 36 wk study)
Structure Therapeutics (GPCR)	GGBR-Next Gen	Dual GLP-1R/GIPR agonist	Discovery	Oral	TBD
Viking Therapeutics (VKT)	VK2735	Dual GLP-1R/GIPR agonist	Phase 2	SC, once weekly	Full results in 2Q; Type C meeting with FDA (mid-2024); Initiate phase 2b (6-9 mos study)
Viking Therapeutics (VKT)	Oral VK2735	Dual GLP-1R/GIPR agonist	Phase 1	Oral	Phase 1 Results in HV, 1Q24
Zealand Pharma A/S (OTC: ZLDPF)	dapigliptide (ZP 7570)	GLP-1/GLP-2 dual agonist	Phase 2	SC, once weekly	1H24 DREAM trial results; 2H24 phase 1b results
Zealand Pharma A/S (OTC: ZLDPF)	petrelintide	Amylin analog (long acting)	Phase 1	SC, once weekly	16-week MAD study, data expected 1H24; initiate phase 2 in 2H24
Zealand Pharma A/S (OTC: ZLDPF) + Boehringer Ingelheim	survodutide	Glucagon/ GLP-1 receptor agonist	Phase 3	SC, once weekly	3 Global registrational studies; primary completion Dec 2025 for 2/3 studies

Source: BofA Global Research, Company Presentations, GLP-1: glucagon-like peptide 1, GIPR: gastric inhibitory polypeptide receptor, YY: peptide, SC: subcutaneous, IV: intravenous, IND: investigational new drug, PoC: proof of concept, wk: week, HV: healthy volunteers

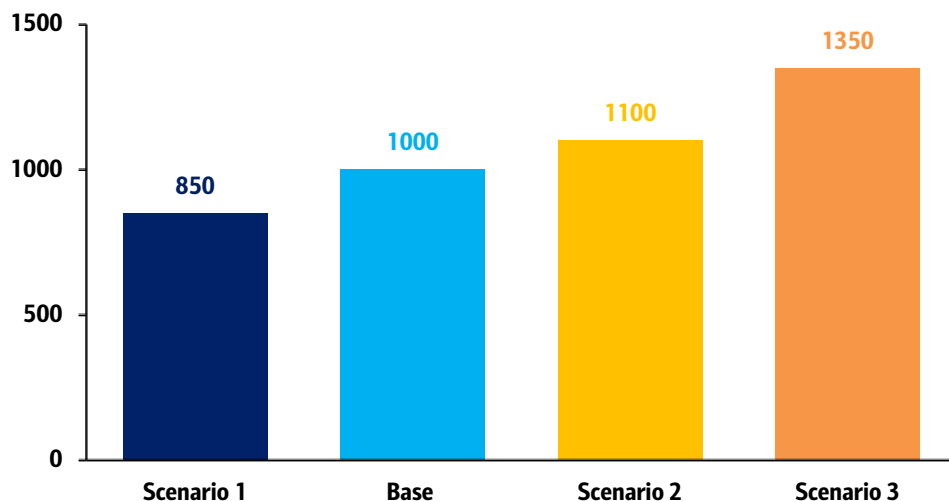
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IRA impact: volume offsets to lower pricing offer downside protection

As we get closer to the Inflation Reduction Act implementation, most investors have baked in Novo's semaglutide (Ozempic + Wegovy) being added to the negotiation list in 2027 (we'll find out about the next batch of drugs being negotiated in 2027 in early 2025). However, the extent of the impact to Lilly is still unclear, so, we decided to perform a NPV analysis to understand the potential effect of semaglutide being added to the negotiation list in 2027 (Exhibit 9). Indeed, in our US obesity commercial model, we currently assume a 40% gross-to-net, an annual 5% price decline from 2027-2030, followed by a 10% price decline in 2021, and an annual 15% price decline from 2032-2035. In scenario 1, if we assume an annual 20% price decline from 2027-2035, we could see \$150 removed from our valuation per share. In scenario 2, if we model the small molecule penalty in the IRA being removed and semaglutide being added to the negotiated list in 2031 (e.g., under the IRA, small molecules only have 9 years of price exclusivity vs. 13 for biologics) we could see \$100 added to our valuation per share. In scenario 3, if we assume the same pricing declines as the base scenario (our PO) but assume 2x the penetration, as volume increases could offset price declines (we model net price of \$213 in 2035), we could see \$350 added to our valuation per share. Ultimately, while the latter scenario is a blue-sky set-up, based on our prescriber channel checks, patient demand is clear, with the only limitations to use currently cost + manufacturing capacity.

Exhibit 9: We could see upside to our valuation in multiple potential scenarios

We could see \$100 added to our valuation per share if the small molecule penalty in the IRA is removed



Source: BofA Global Research, the base scenario is our PO

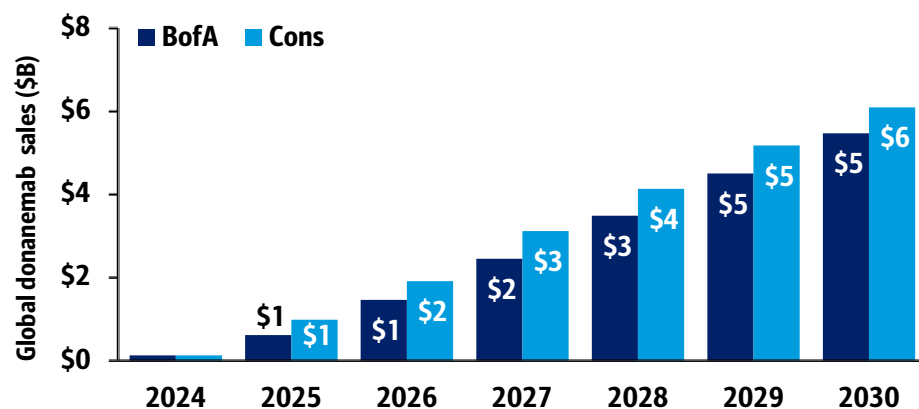
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Alzheimer's, oncology + I&I franchise reduce concentration risk

Given the P&L impact from Lilly's endocrinology portfolio, we understandably don't get a lot of questions on Lilly's neuroscience, oncology, and immunology & inflammation (I&I) portfolios. But that said, we think there's a lot to like about Lilly's new growth assets, as they add optionality and reduce concentration risk. First on Lilly's Alzheimer's asset, donanemab, we're waiting for full regulatory approval, which is now expected in 1Q24 (was pushed from late 2023 due to the size of the regulatory package). In terms of what to expect in the label, if approved, we expect it to be comparable to Biogen/ Eisai's Leqembi based on our discussions with management and key opinion leaders (KOLs) even though Lilly enrolled a different patient population. And, while Leqembi's launch has been slower than expected (2k patients on treatment as of Jan 26th), we think Lilly has done a good job outlining the numerous commercial hurdles, which sets up a beatable bar. We remain below the Street on donanemab but see upside to our forecasts based on potential combinations with GLP-1s (Exhibit 10; Novo is currently running a phase 3 testing semaglutide in Alzheimer's, we expect a readout in 2025).

Exhibit 10: Global donanemab sales are modest relative to endocrinology

We remain below the Street given ongoing commercial hurdles



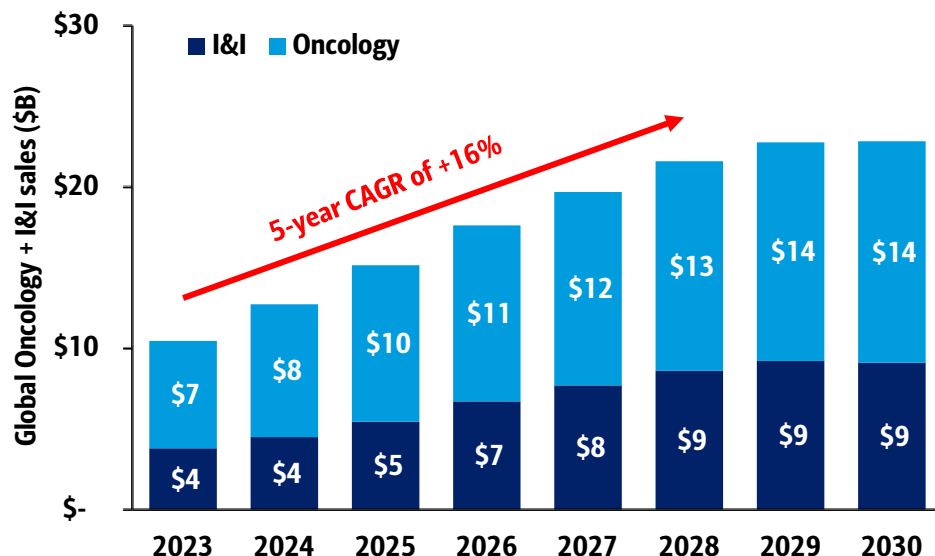
Source: BofA Global Research, VisibleAlpha

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Finally, we'd argue that Lilly's I&I and oncology growth potential is underappreciated by investors given the focus on its endocrinology portfolio. That said, we forecast a 5-year CAGR of +16% for Lilly's oncology and I&I portfolios, with individual CAGRs of +14% and +18%, respectively, which is impressive, in our view (Exhibit 11). Indeed, we see Verzenio, Retevmo, and Jaypirca as growth drivers for Lilly's oncology portfolio and Omvoh and Ebglyss as growth drivers for its I&I portfolio.

Exhibit 11: We'd argue Lilly's I&I and oncology growth opportunity is underappreciated

We forecast a 5-year CAGR of +16% for the I&I and Oncology portfolios



Source: BofA Global Research

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Abbreviations:

GLP-1: glucagon like peptide 1

HFpEF: Heart failure with preserved ejection fraction

NASH: nonalcoholic steatohepatitis

OSA: obstructive sleep apnea

T2D: Type 2 diabetes

I&I: immunology and inflammation

GGG: GLP-1, GIP, and Glucagon

TAM: total addressable market

IP: intellectual property

CAGR: Compound annual growth rate

I&I: Immunology and Inflammation

CapEx: capital expenditures

GIP: gastric inhibitory polypeptide

HbA1c: Hemoglobin A1C

Price objective basis & risk

Eli Lilly and Company (LLY)

Our \$1000 price objective is based on a probability-adjusted net present value (NPV) analysis of franchise verticals including Endocrinology (\$691/share), Oncology (\$135/share), Cardiovascular (\$4/share), Neuroscience (\$14/share), Immunology (\$46/share), other pharmaceutical products and early pipeline assets (\$128/share), as well as approximately -\$17/share in net cash. We use a WACC ranging from 5% for approved products to 8% for pipeline products, depending on the stage of development. We apply terminal values ranging from -12% (cardiology) to 1% (endocrinology) based on projected sales decline following loss of exclusivity within each business vertical.

Risks to our price objective are 1) better-than-expected launches of competing products, 2) emerging clinical data for pipeline assets that does not confirm prior observations, 3) failure to effectively commercialize approved products, 4) potential drug pricing system restructuring in the US.

Analyst Certification

I, Geoff Meacham, 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.

US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	89bio, Inc	ETNB	ETNB US	Geoff Meacham
	Acumen Pharma	ABOS	ABOS US	Geoff Meacham
	Agios Pharmaceuticals	AGIO	AGIO US	Greg Harrison, CFA
	Amylyx Pharmaceuticals	AMLX	AMLX US	Geoff Meacham
	BioMarin	BMRN	BMRN US	Geoff Meacham
	BioXcel Therapeutics	BTAI	BTAI US	Greg Harrison, CFA
	BridgeBio Pharma	BBIO	BBIO US	Greg Harrison, CFA
	Caribou	CRBU	CRBU US	Geoff Meacham
	CRISPR Therapeutics	CRSP	CRSP US	Geoff Meacham
	Eli Lilly and Company	LLY	LLY US	Geoff Meacham
	Gilead Sciences Inc.	GILD	GILD US	Geoff Meacham
	HUTCHMED	HCM	HCM US	Alec W. Stranahan
	Immatics	IMTX	IMTX US	Alec W. Stranahan
	Insmmed Incorporated	INSM	INSM US	Jason Zemansky
	Intellia Therapeutics	NTLA	NTLA US	Greg Harrison, CFA
	Janux Therapeutics	JANX	JANX US	Alec W. Stranahan
	Keros	KROS	KROS US	Greg Harrison, CFA
	Kiniksa Pharmaceuticals, Ltd.	KNSA	KNSA US	Geoff Meacham
	Krystal Biotech	KRYS	KRYS US	Alec W. Stranahan
	Kura Oncology	KURA	KURA US	Jason Zemansky
	Liquidia Corporation	LQDA	LQDA US	Greg Harrison, CFA
	Lyell Immunopharma	LYEL	LYEL US	Geoff Meacham
	MeiraGTx	MGTX	MGTX US	Alec W. Stranahan
	Merck & Co.	MRK	MRK US	Geoff Meacham
	Mineralys Therapeutics	MLYS	MLYS US	Greg Harrison, CFA
	Neumora Therapeutics	NMRA	NMRA US	Geoff Meacham
	Rani Therapeutics	RANI	RANI US	Geoff Meacham
	Regenxbio, Inc.	RGNX	RGNX US	Alec W. Stranahan
	Revolution Medicines	RVMD	RVMD US	Alec W. Stranahan
	Rocket Pharmaceuticals, Inc.	RCKT	RCKT US	Greg Harrison, CFA
	Royalty Pharma	RPRX	RPRX US	Geoff Meacham
	Sana Biotechnology	SANA	SANA US	Geoff Meacham
	SpringWorks	SWTX	SWTX US	Alec W. Stranahan
	Syndax Pharmaceuticals	SNDX	SNDX US	Jason Zemansky
	Traverse Therapeutics Inc	TVTX	TVTX US	Greg Harrison, CFA

US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Turnstone Biologics	TSBX	TSBX US	Geoff Meacham
	Vertex Pharmaceuticals Inc.	VRTX	VRTX US	Geoff Meacham
	Werewolf Therapeutics	HOWL	HOWL US	Jason Zemansky
	Xencor	XNCR	XNCR US	Alec W. Stranahan
NEUTRAL				
	AbbVie	ABBV	ABBV US	Geoff Meacham
	Alector, Inc	ALEC	ALEC US	Greg Harrison, CFA
	Amgen Inc.	AMGN	AMGN US	Geoff Meacham
	Arcus Biosciences	RCUS	RCUS US	Jason Zemansky
	Beam Therapeutics	BEAM	BEAM US	Greg Harrison, CFA
	Biogen Inc.	BIIB	BIIB US	Geoff Meacham
	Bristol-Myers Squibb	BMJ	BMJ US	Geoff Meacham
	Cytokinetics, Incorporated	CYTK	CYTK US	Jason Zemansky
	Editas Medicine	EDIT	EDIT US	Greg Harrison, CFA
	Erasca	ERAS	ERAS US	Alec W. Stranahan
	Esperion	ESPR	ESPR US	Jason Zemansky
	Exscientia	EXAI	EXAI US	Alec W. Stranahan
	IGM Biosciences	IGMS	IGMS US	Greg Harrison, CFA
	Johnson & Johnson	JNJ	JNJ US	Geoff Meacham
	Kymira Therapeutics	KYMR	KYMR US	Geoff Meacham
	Moderna	MRNA	MRNA US	Geoff Meacham
	Pfizer	PFE	PFE US	Geoff Meacham
	Recursion Pharmaceuticals, Inc.	RXRJ	RXRJ US	Alec W. Stranahan
	Tyra Biosciences	TYRA	TYRA US	Greg Harrison, CFA
	Vir	VIR	VIR US	Alec W. Stranahan
	Y-mAbs Therapeutics, Inc	YMAB	YMAB US	Alec W. Stranahan
UNDERPERFORM				
	AlloVir, Inc.	ALVR	ALVR US	Jason Zemansky
	CureVac	CVAC	CVAC US	Geoff Meacham
	Day One Biopharmaceuticals	DAWN	DAWN US	Alec W. Stranahan
	Novavax	NVAX	NVAX US	Alec W. Stranahan
	Regeneron Pharmaceuticals Inc.	REGN	REGN US	Geoff Meacham
	Reneo Pharmaceuticals	RPHM	RPHM US	Jason Zemansky
	TG Therapeutics	TGTX	TGTX US	Alec W. Stranahan
	United Therapeutics Corporation	UTHR	UTHR US	Greg Harrison, CFA

IQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

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

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

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

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

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

Basic EBIT + Depreciation + Amortization



Valuation Toolkit

Numerator

Denominator

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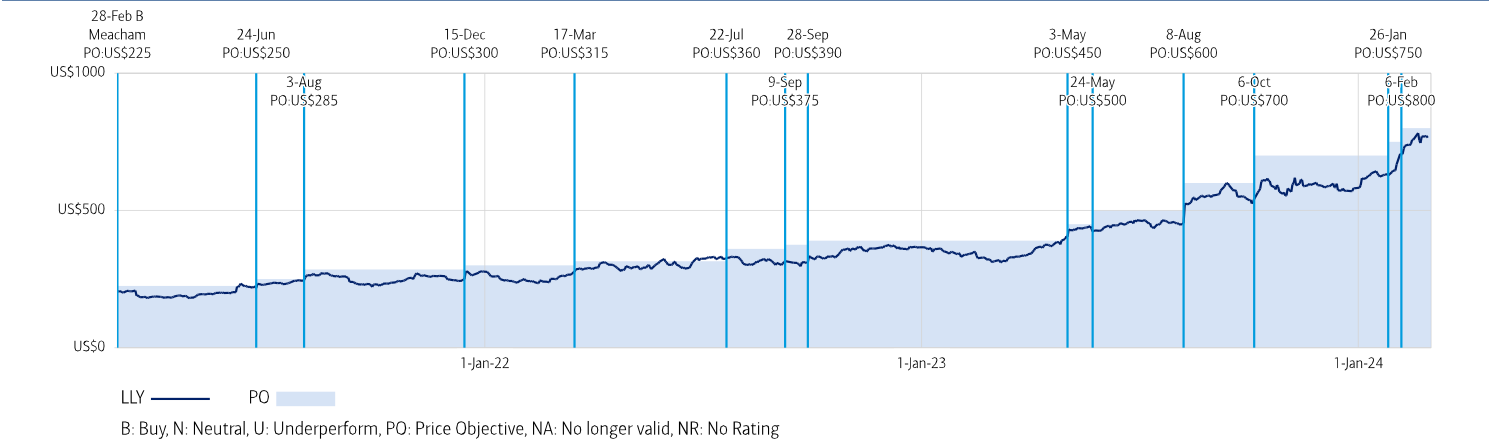
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Important Disclosures

Eli Lilly (LLY) Price Chart



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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	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 ^{R1}	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%

^{R1} 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.

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

^{R2} 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.

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