

Takeda Pharm. (4502)

Oct-Dec preview

Reiterate Rating: BUY | PO: 5,000 JPY | Price: 4,385 JPY

Takeda: Buy, PO ¥5,000

We revised our estimates ahead of 3Q FY3/24 earnings results to reflect US approval of colorectal cancer treatment Fruzaqla, congenital thrombotic thrombocytopenic purpura (cTTP) drug Adzynma, and US/EU approval of adults with chronic inflammatory demyelinating polyneuropathy (CIDP) maintenance therapy Hyqvia. We mainly added Fruzaqla sales to our earnings model and increased our probability of success assumption for Adzynma from 90% to 100%. Ph2 Adzynma results for immune thrombotic thrombocytopenic purpura (iTTP) are expected in 2H FY3/25. Taking into account the competitive landscape, we estimate peak annual sales of ¥33.2bn for Fruzaqla and ¥51.0bn for Adzynma (cTTP indication) and thus revised up our five-year revenue and Core OP estimates slightly. Our stock beta assumption remains unchanged at 0.76, as does our DCF-based PO of ¥5,000. Our Buy rating is based on the following key points.

- After significantly reducing interest-bearing debt that resulted from the Shire acquisition, Takeda is set to begin a phase of growth investment and strengthened shareholder return. The Nimbus acquisition to acquire psoriasis drug TAK-279 is a recent example of Takeda's growth investment. On the shareholder return front, management announced a dividend hike in 4Q FY3/23.

- Among existing businesses, the oncology and neuroscience businesses are depressed owing to major patent expiries for drugs like Velcade (multiple myeloma) and Vyvanse (ADHD). In contrast, the plasma-derived therapies (PDT) business continues to expand. Management disclosed a new target: boosting FY3/29 PDT production capacity by more than 50% over FY3/24 levels.

- An issue for Takeda is the small scale of recently commercialized projects. Takeda needs to expand its pipeline to include potential blockbusters that can support a company of its size.

Estimates (¥)	3/22A	3/23A	3/24E	3/25E	3/26E
	IFRS	IFRS	IFRS	IFRS	IFRS
EPS	146.55	201.94	150.69	137.38	167.89
EPS Change (YoY)	-38.8%	37.8%	-25.4%	-8.8%	22.2%
Dividend / Share	180	180	188	188	188
BPS	3,655.8	4,087.5	4,059.7	4,010.4	3,992.0
Valuation					
P/E	29.9x	21.7x	29.1x	31.9x	26.1x
Dividend Yield*	4.1%	4.1%	4.3%	4.3%	4.3%
P/B	1.2x	1.1x	1.1x	1.1x	1.1x
EV/ EBITDA*	10.2x	9.3x	9.8x	10.1x	10.0x
Free Cash Flow Yield*	12.8%	4.1%	9.3%	8.0%	7.9%

* For full definitions of *IQmethod*SM measures, see page 6.

18 January 2024

Equity

Key Changes

(¥)	Previous	Current
2024E Rev (m)	4,059,600.0	4,061,800.0
2025E Rev (m)	3,991,300.0	4,000,300.0
2026E Rev (m)	4,041,100.0	4,047,400.0
2024E EPS	149.87	150.69
2025E EPS	134.83	137.38
2026E EPS	166.75	167.89
2024E EBITDA (m)	1,084,400.0	1,086,100.0
2025E EBITDA (m)	1,053,100.0	1,058,200.0
2026E EBITDA (m)	1,067,200.0	1,069,500.0

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Stock Data

Price (Common / ADR)	4,385 JPY / 14.86 USD
Price Objective	5,000 JPY / 17.20 USD
Date Established	25-Oct-2023/ 25-Oct-2023
Investment Opinion	A-1-7 / B-1-7
52-Week Range	3,900-4,873 JPY
Market Value (mn)	6,883,868 JPY
Market Value (\$mn)	46,372 USD
Shares Outstanding (mn)	1,569.9
Average Daily Value (\$mn)	127.0 USD
Free Float	95.6%
BofA Ticker / Exchange	TKPHF / TYO
BofA Ticker / Exchange	TAK / NYS
Bloomberg / Reuters	4502 JP / 4502.T
ROE (2024E)	3.7%
Net Dbt to Eqty (Mar-2023A)	60.0%

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Refer to important disclosures on page 7 to 10. Analyst Certification on page 4. Price Objective Basis/Risk on page 4.

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Timestamp: 18 January 2024 08:12AM EST

iQprofileSM Takeda Pharm. (4502)

Key Income Statement Data	3/22A	3/23A	3/24E	3/25E	3/26E
(¥ Millions)	IFRS	IFRS	IFRS	IFRS	IFRS
Sales	3,569,006	4,027,478	4,061,800	4,000,300	4,047,400
% Change	11.6%	12.8%	0.9%	-1.5%	1.2%
Gross Profit	2,462,160	2,783,406	2,772,100	2,693,100	2,725,900
EBITDA	1,044,044	1,154,905	1,086,100	1,058,200	1,069,500
Operating Profit	460,844	490,505	382,400	436,700	496,400
% Change	-9.5%	6.4%	-22.0%	14.2%	13.7%
Net Interest & Other Income	(142,907)	(106,785)	(148,300)	(148,000)	(145,500)
Pretax Income	302,570	375,090	225,470	280,070	342,270
% Change	-17.4%	24.0%	-39.9%	24.2%	22.2%
Net Income	230,058	317,017	236,570	215,670	263,570

Key Cash Flow Statement Data					
Net Income from Cont Operations (GAAP)	230,058	317,017	236,570	215,670	263,570
Depreciation & Amortization	583,200	664,400	703,700	621,500	573,100
Change in Working Capital	206,913	(88,832)	(17,900)	5,100	(9,400)
Capital Expenditure	(186,037)	(633,689)	(284,400)	(290,600)	(285,700)
Free Cash Flow*	882,560	279,090	637,970	551,670	541,570
Share Issue / (Repurchase)	(77,531)	(26,929)	0	0	0
Cost of Dividends Paid	(283,665)	(279,416)	(279,800)	(292,300)	(292,300)

Key Balance Sheet Data					
Cash & Equivalents	875,000	568,939	870,200	979,600	1,228,900
Trade Receivables	696,644	649,429	655,000	645,100	652,700
Other Current Assets	1,021,998	1,155,257	1,191,400	1,205,300	1,216,600
Property, Plant & Equipment	1,582,800	1,691,229	1,676,800	1,670,600	1,672,100
Other Non-Current Assets	9,001,576	9,868,565	9,437,911	9,063,211	8,724,311
Total Assets	13,178,018	13,933,419	13,831,311	13,563,811	13,494,611
Short-Term Debt	203,993	339,600	339,600	339,600	339,600
Other Current Liabilities	1,941,737	2,142,340	2,166,100	2,175,200	2,184,700
Long-Term Debt	4,141,418	4,042,741	3,935,811	3,735,811	3,685,811
Other Non-Current Liabilities	1,207,346	1,078,397	1,078,400	1,078,400	1,078,400
Total Liabilities	7,494,494	7,603,078	7,519,911	7,329,011	7,288,511
Total Equity	5,683,523	6,354,672	6,311,400	6,234,800	6,206,100
Total Equity & Liabilities	13,178,017	13,957,750	13,831,311	13,563,811	13,494,611

Key Metrics

iQmethodSM – Business Performance*

Return On Capital Employed	3.3%	4.1%	3.2%	3.1%	3.5%
Return On Equity	4.2%	5.3%	3.7%	3.4%	4.2%
Operating Margin	12.9%	12.2%	9.4%	10.9%	12.3%

iQmethodSM – Quality of Earnings*

Cash Realization Ratio	4.6x	2.9x	3.9x	3.9x	3.1x
Asset Replacement Ratio	1.4x	4.1x	1.9x	1.9x	1.9x
Tax Rate (Reported)	23.9%	15.5%	NM	23.0%	23.0%
Net Debt-to-Equity Ratio	61.1%	60.0%	54.0%	49.7%	45.1%
Interest Cover	2.8x	2.9x	2.2x	2.5x	2.9x

* For full definitions of iQmethodSM measures, see page 6.
Other GAAP denotes Japanese Accounting Standards.

Company Sector

Pharmaceuticals

Company Description

A top Japan drug maker. Profits fell with the Actos patent expiry in 2010, but management aims to achieve recovery through Entyvio and the Shire acquisition in 2019. Core therapeutic areas are GI, rare diseases, PDT, Oncology, and Neuroscience. Management emphasis is on becoming first-ever Japan-based global pharmaceutical company, but near-term focus will be on pipeline enhancement. The management is committed to progressive dividend policy of increasing or maintaining the dividend each year.

Investment Rationale

Buy call based on expectations deleveraging will result in (1) continued growth investment, including acquisition of potential blockbuster candidates (2) improved shareholder return. Near-term earnings prospects are harsh on imminent Vyvanse patent expiration but incentives include delayed commercialization of Entyvio biosimilars, in-licensing of psoriasis treatment TAK-279, PoC for narcolepsy treatment TAK-861. Sustained investment to cultivate growth drivers and strengthen shareholder return.

Stock Data

Key Changes

(US\$)	Previous	Current
2024E EPS	0.50	0.51
2025E EPS	0.45	0.46
2026E EPS	0.56	0.57

Exhibit 8: Takeda(4502): Consolidated earnings summary

Sales, OP and EPS

		Sales ¥ mn	YoY %	Core OP ¥ mn	YoY %	GAAP OP ¥ mn	YoY %	GAAP NP ¥ mn	YoY %	Core EPS ¥	PER times
FY3/23 actual	IFRS	4,027,478	12.8	1,188,444	24.4	490,505	6.4	317,017	37.8	558	7.9
Company estimate		3,980,000	-1.2	1,015,000	-14.6	225,000	-54.1	93,000	-70.7	434	11.5
FY3/23 BofA estimate	Revised	4,061,800	0.9	1,076,200	-9.4	382,400	-22.0	236,570	-25.4	463	9.5
	Previous	4,059,600	0.8	1,074,500	-9.6	380,700	-22.4	235,270	-25.8	462	9.5
FY3/24 BofA estimate	Revised	4,000,300	-1.5	997,400	-7.3	436,700	14.2	215,670	-8.8	424	10.3
	Previous	3,991,300	-1.7	992,300	-7.7	431,600	13.4	211,670	-10.0	422	10.4
FY3/26 BofA estimate	Revised	4,047,400	1.2	1,013,500	1.6	496,400	13.7	263,570	22.2	433	10.1
	Previous	4,041,100	1.2	1,011,200	1.9	494,100	14.5	261,770	23.7	432	10.1
FY3/27 BofA estimate	Revised	4,135,300	2.2	1,044,000	3.0	569,100	14.6	324,070	23.0	452	9.7
	Previous	4,135,800	2.3	1,045,600	3.4	570,700	15.5	325,270	24.3	452	9.7
FY3/28 BofA estimate	Revised	4,141,500	0.1	1,016,200	-2.7	581,800	2.2	339,870	4.9	442	9.9
	Previous	4,150,100	0.3	1,022,400	-2.2	588,100	3.0	344,670	6.0	445	9.9

Source: Company. Estimates by BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

Takeda Pharm. (4502 / TKPHF / TAK)

We base our JPY5,000 PO (ADR: \$17.20) on our 12-year DCF model and also taking into account valuations such as P/E and P/B. Our DCF assumptions are risk-free rate 1.0%, equity risk premium 5.5%, terminal growth 1.0% and tax rate 40%. Individual company FCF risk is reflected in the stock beta, which takes into account quantitative risk based on new drug development scenario analysis and qualitative risk based on factors such as management strategies, and is set at a tiered level within the sector. We use the Bloomberg two-year adjusted beta of 0.68, and base our price objective for the company on a stock beta of 0.76, and WACC of 3.9%. Our PO equates to a P/E of 11x our FY3/24 Core EPS forecast. Upside risks are favorable new drug pipeline data and better-than-expected progress in cost reductions. Downside risks are a cancellation or postponement of new product development or changes in product evaluation, inaccuracy in our DCF assumptions and higher-than-expected impairment losses on intangible assets.

Analyst Certification

I, Koichi Mamegano, 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.

APR - Healthcare Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Adicon Holdings	ADCNF	9860 HK	David Li
	Aier Eye Hospital	XAEOF	300015 CH	David Li
	Amvis Holdings	XEPSF	7071 JP	Ritsuo Watanabe
	Angelalign Technology Inc	AGLFF	6699 HK	David Li
	APM Human Services	XBZXF	APM AU	Lyanne Harrison
	Apollo Hospital	XWQAF	APHS IN	Neha Manpuria
	Asahi Intecc	AHICF	7747 JP	Ritsuo Watanabe
	Aurobindo	XLZFF	ARBP IN	Neha Manpuria
	Australian Clinical Labs	XAUKF	ACL AU	Lyanne Harrison
	Autobio Diagnostics Co Ltd	XQDXF	603658 CH	Sandra Sun
	AVITA	AVHHL	AVH AU	Lyanne Harrison
	AVITA	RCEL	RCEL US	Lyanne Harrison
	Baiyunshan	GZPHF	874 HK	Sandra Sun
	Bangkok Chain Hospital	BKKFF	BCH TB	Charti Phrawphraikul
	Bangkok Dusit Medical Services	BDUFF	BDMS TB	Charti Phrawphraikul
	Beijing Tongrentang Co., Limited	BJTGF	600085 CH	David Li
	Biocon	XLOFF	BIOS IN	Neha Manpuria
	Bumrungrad Hospital	BUHHF	BH TB	Charti Phrawphraikul
	Cansino Bio	CASBF	6185 HK	David Li
	Chugai Pharm.	CHGCF	4519 JP	Koichi Mamegano
	Chularat Hospital Group	XOCOF	CHG TB	Charti Phrawphraikul
	CSL Limited	CMXHF	CSL AU	Lyanne Harrison
	Daiichi Sankyo	DSKYF	4568 JP	Koichi Mamegano
	Daiichi Sankyo	DSNKY	DSNKY US	Koichi Mamegano
	Dr. Reddy's	DRYBF	DRRD IN	Neha Manpuria
	Dr. Reddy's	RDY	RDY US	Neha Manpuria
	EBOS Group Limited	EBOSF	EBO NZ	Lyanne Harrison
	EBOS Group Limited	XEBOF	EBO AU	Lyanne Harrison
	Eisai	ESALF	4523 JP	Koichi Mamegano
	Everest Medicine	XMLKF	1952 HK	David Li
	Fisher & Paykel Healthcare	XPAXF	FPH AU	Lyanne Harrison
	Fisher & Paykel Healthcare	FSPKF	FPH NZ	Lyanne Harrison
	Fortis Health	XFFTF	FORH IN	Neha Manpuria
	Frontage	FGHQF	1521 HK	David Li
	Gland Pharma	XGLPF	GLAND IN	Neha Manpuria
	Glenmark Life Sciences	XWDPF	GLS IN	Neha Manpuria

APR - Healthcare Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Gushengtang	GSHTF	2273 HK	David Li
	Huadong Medicine	XCPDF	000963 CH	Ethan Cui
	Hualan Biological	XCBEF	002007 CH	Ethan Cui
	Hygeia Healthcare	HYHHF	6078 HK	Ethan Cui
	IHH Healthcare Berhad	IHHHF	IHH MK	Paul Dewberry
	IHH Healthcare Bhd	XFAHF	IHH SP	Paul Dewberry
	Imeik	ZMITF	300896 CH	Ethan Cui
	Innovent	IVBXF	1801 HK	David Li
	Integral Diagnostics	ITGDF	IDX AU	Lianne Harrison
	Jinxin Fertility	JXFGF	1951 HK	Ethan Cui
	Jinyu Bio-Tech	XMTDF	600201 CH	David Li
	Kangji Medical	KMHF	9997 HK	David Li
	Medley	XEQNF	4480 JP	Ritsuo Watanabe
	MicroPort	MCRPF	853 HK	Sandra Sun
	Mindray	XDVVF	300760 CH	Sandra Sun
	Nanosonics Limited	NNCSF	NAN AU	Lianne Harrison
	Olympus Corp.	OCPNF	7733 JP	Ritsuo Watanabe
	Ovctek	XOCKF	300595 CH	David Li
	Pharmaron	PHBBF	3759 HK	David Li
	Polynovo	CALZF	PNV AU	Lianne Harrison
	Praram 9 Hospital	XPNHF	PR9 TB	Charti Phrawphraikul
	ResMed Inc	RSMDF	RMD AU	Lianne Harrison
	ResMed Inc.	RMD	RMD US	Lianne Harrison
	Sawai Group Holdings	SWGHF	4887 JP	Ritsuo Watanabe
	Shanghai Pharmaceuticals	SHPMF	2607 HK	David Li
	Shanghai United Imaging	XCAOF	688271 CH	Sandra Sun
	Shionogi	SGIOF	4507 JP	Koichi Mamegano
	Shionogi	SGIOY	SGIOY US	Koichi Mamegano
	Sino Biopharm	SBMFF	1177 HK	David Li
	Sinopharm	SHTDF	1099 HK	David Li
	SMS	SMSZF	2175 JP	Ritsuo Watanabe
	Sonic Healthcare Limited	SKHCF	SHL AU	Lianne Harrison
	Sosei	SOLTF	4565 JP	Koichi Mamegano
	Takeda Pharm.	TKPHF	4502 JP	Koichi Mamegano
	Takeda Pharm.	TAK	TAK US	Koichi Mamegano
	Terumo	TRUMF	4543 JP	Ritsuo Watanabe
	TigerMed	HTMDF	3347 HK	David Li
	TRYT	XHXTF	9164 JP	Ritsuo Watanabe
	Wuxi Apptec	WUXIF	2359 HK	David Li
	Wuxi Apptec	XLUHF	603259 CH	David Li
	Yifeng Pharmacy	XYHCF	603939 CH	Ethan Cui
	Yunnan Baiyao	YBAIF	000538 CH	Sandra Sun
	Zai Lab	ZLAB	ZLAB US	David Li
	Zai Lab	XCDZF	9688 HK	David Li
	Zhifei	XCHOF	300122 CH	David Li

NEUTRAL

	Ansell Limited	ANSLF	ANN AU	Lianne Harrison
	Astellas Pharma	ALPMF	4503 JP	Koichi Mamegano
	Astellas Pharma	ALPMY	ALPMY US	Koichi Mamegano
	Beigene	XBETF	6160 HK	David Li
	Beigene	BGNE	BGNE US	David Li
	Healius Limited	PHCRF	HLS AU	Lianne Harrison
	JMDC	JMDCF	4483 JP	Ritsuo Watanabe
	Joinn Lab	XQTSF	6127 HK	David Li
	Kyowa Kirin	KYKOF	4151 JP	Koichi Mamegano
	Max Healthcare	XMHLF	MAXHEALT IN	Neha Manpuria
	PHC Holdings	PHCCF	6523 JP	Ritsuo Watanabe
	Pien Tze Huang	XUVHF	600436 CH	Sandra Sun
	Ramsay Health Care Limited	RMSYF	RHC AU	Lianne Harrison
	Sigma Healthcare Limited	SIGGF	SIG AU	Lianne Harrison
	Sun Pharma	XPUCF	SUNP IN	Neha Manpuria
	Topchoice Medical	XZDXF	600763 CH	Ethan Cui
	Torrent Pharma	TOPHF	TRP IN	Neha Manpuria
	WuXi Biologics	WXIBF	2269 HK	David Li
	Zydus Lifesciences	XMQLF	ZYDUSLIF IN	Neha Manpuria



APR - Healthcare Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
UNDERPERFORM				
	Ain Holdings	AINPF	9627 JP	Ritsuo Watanabe
	Alkem	XAMLF	ALKEM IN	Neha Manpuria
	Asymchem Laboratories	XALPF	002821 CH	David Li
	Baiyunshan	XOUFF	600332 CH	Sandra Sun
	Beijing Wantai Biological Pharmacy	XBHIF	603392 CH	David Li
	Cipla	XCCLAF	CIPLA IN	Neha Manpuria
	Cochlear Limited	CHEOF	COH AU	Lynne Harrison
	CSPC Pharmaceutical	CHJTF	1093 HK	Ethan Cui
	Divis Laboratories	XXQPF	DIVI IN	Neha Manpuria
	Hansoh	HNSPF	3692 HK	David Li
	Hengrui Medicine	XMOKF	600276 CH	David Li
	Joynn Lab	JOLCF	603127 CH	David Li
	Lupin	XEFSF	LPC IN	Neha Manpuria
	M3	MTHRF	2413 JP	Ritsuo Watanabe
	Mankind Pharma	XDZCF	MANKIND IN	Neha Manpuria
	Medipal Holdings	MEPDF	7459 JP	Ritsuo Watanabe
	Ono Pharm.	OPHLF	4528 JP	Koichi Mamegano
	Otsuka HD	OTSKF	4578 JP	Koichi Mamegano
	Otsuka HD	OTSKY	OTSKY US	Koichi Mamegano
	Pharmaron	XLYGF	300759 CH	David Li
	Shanghai Pharmaceuticals	XKCRF	601607 CH	David Li
	Sysmex	SSMXF	6869 JP	Ritsuo Watanabe
	TigerMed	XHTHF	300347 CH	David Li

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

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

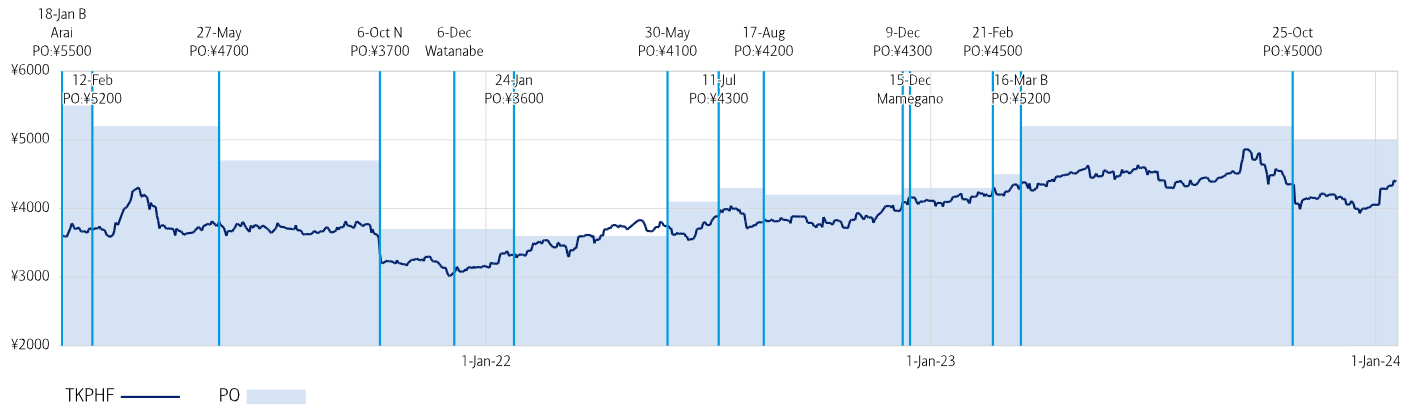
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Disclosures

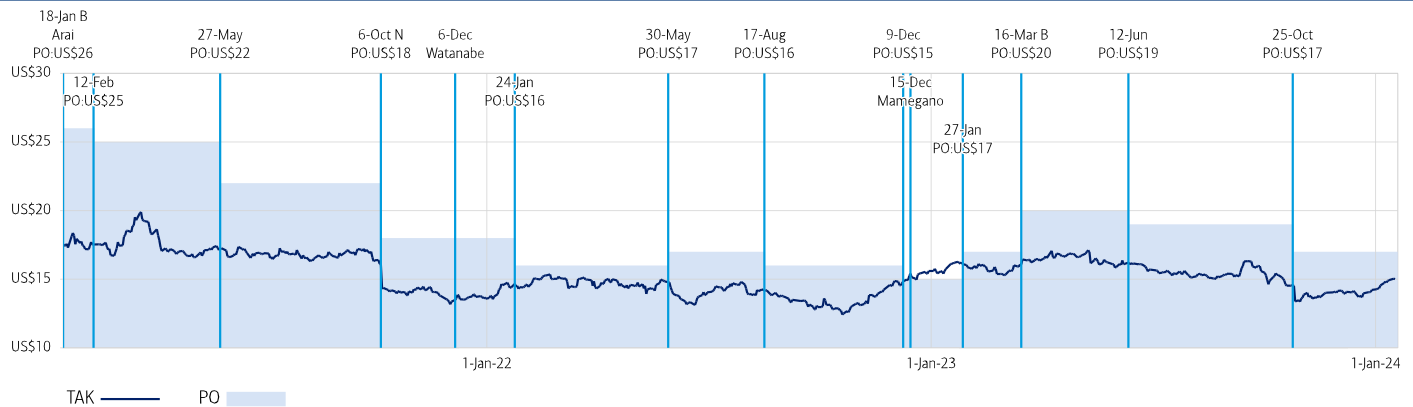
Important Disclosures

Takeda Pharm. (TKPHF) 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.

Takeda Pharm. (TAK) 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 ^{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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