

Vertex Pharmaceuticals Incorporated

Recommendation **BUY** ★ ★ ★ ★ ★

Price
USD 287.24 [as of market close Mar 10, 2023]

12-Mo. Target Price USD 337.00

Report Currency
USD

Investment Style
Large-Cap Growth

Equity Analyst Stewart Glickman, CFA

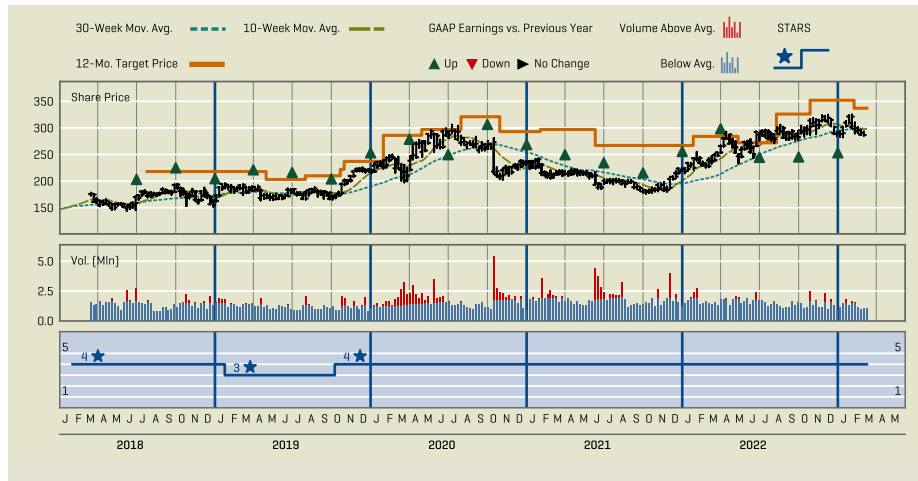
GICS Sector Health Care
Sub-Industry Biotechnology

Summary VRTX develops small molecule therapeutics for the treatment of a wide range of diseases, led by cystic fibrosis and anti-inflammatory conditions.

Key Stock Statistics [Source: CFRA, S&P Global Market Intelligence (SPGMI), Company Reports]

52-Wk Range	USD 325.19 - 233.01	Oper.EPS2023E	USD 14.89	Market Capitalization[B]	USD 73.75	Beta	0.48
Trailing 12-Month EPS	USD 14.89	Oper.EPS2024E	USD 15.68	Yield [%]	N/A	3-yr Proj. EPS CAGR[%]	6
Trailing 12-Month P/E	19.29	P/E on Oper.EPS2023E	19.29	Dividend Rate/Share	N/A	SPGMI's Quality Ranking	B-
USD 10K Invested 5 Yrs Ago	16,296.0	Common Shares Outstg.[M]	257.00	Trailing 12-Month Dividend	N/A	Institutional Ownership [%]	95.0

Price Performance



Source: CFRA, S&P Global Market Intelligence

Past performance is not an indication of future performance and should not be relied upon as such.

Analysis prepared by **Stewart Glickman, CFA** on Feb 23, 2023 06:22 AM ET, when the stock traded at **USD 294.36**.

Highlights

- In February, VRTX guided 2023 product revenues in a range of \$9.55 billion - \$9.70 billion, or about 7% - 9% growth versus 2022 levels. We think the bulk of that improvement is likely to be driven by Trikafta, but ongoing efforts to improve upon Trikafta remain high, including two Phase III trials that are likely to be done by late 2023.
- Trikafta is a triple combination therapy of VX-445, tezacaftor, and ivacaftor indicated for most patients with cystic fibrosis (CF). This drug expanded VRTX's market opportunity by approximately 55% (relative basis) to about 90% of the CF population. VRTX estimates that there are 83,000 patients living with CF in the U.S., Europe, Canada, and Australia. We believe that Trikafta will be a key driver of sales growth as VRTX continues to expand commercial access to the drug and converts patients on old therapies to it.
- VRTX is in the midst of filing a BLA, in conjunction with its partner CRISPR Therapeutics [CRSP 50 NR] for its exa-cel therapy, a sickle cell disease treatment, with expectations for a completion by the end of the first quarter of 2023. The company is also working on a treatment for APOL1-mediated kidney disease.

Investment Rationale/Risk

- Our opinion is Buy. VRTX has a first-mover advantage in CF treatment, complemented by potential early- to mid-stage clinical programs outside of CF. Strong patient reliance on VRTX's CF drugs and currently limited competition to the CF franchise support the cost of diversifying into non-CF businesses. We are particularly optimistic about CTX001, a potential one-time cure for sickle cell disease. We also see continued opportunities for Trikafta to outperform consensus expectations as VRTX obtains additional reimbursement agreements outside the U.S. and expands the treatable population.
- Risks to our opinion and target price include unfavorable regulatory rulings, the emergence of competitive threats (including Abbvie's potential CF drug), weaker-than-expected margins, and pricing or reimbursement pressures.
- Our 12-month target of \$337 reflects a 21.5x P/E multiple on projected 2024 EPS, above VRTX's historical forward average. While there is some risk from competing CF drugs, we think VRTX's pipeline of candidates in other areas (notably gene-editing for sickle cell disease) offers good potential, as does expansion into the under-served acute pain market.

Analyst's Risk Assessment

LOW	MEDIUM	HIGH
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Although VRTX is a clear and dominant leader in the market for cystic fibrosis treatments and has historically maintained a strong financial position, VRTX's current reliance on only sales of cystic fibrosis treatments precludes us from assigning it a risk assessment of low.

Revenue/Earnings Data

	Revenue (Million USD)				
	1Q	2Q	3Q	4Q	Year
2024	E 2,425	E 2,525	E 2,700	E 2,840	E 10,490
2023	E 2,330	E 2,400	E 2,460	E 2,515	E 9,705
2022	2,098	2,196	2,334	2,303	8,931
2021	1,724	1,793	1,984	2,073	7,574
2020	1,515	1,524	1,538	1,628	6,206
2019	858	941	950	1,413	4,163

Earnings Per Share (USD)

	Earnings Per Share (USD)				
	1Q	2Q	3Q	4Q	Year
2024	E 3.44	E 3.70	E 4.14	E 4.40	E 15.68
2023	E 3.25	E 3.80	E 3.95	E 3.89	E 14.89
2022	3.52	3.60	4.01	3.76	14.88
2021	2.98	3.11	3.56	3.37	13.02
2020	2.56	2.61	2.64	2.51	10.32
2019	1.14	1.26	1.23	1.70	5.33

Fiscal Year ended Dec 31. EPS Estimates based on CFRA's Operating Earnings; historical earnings are adjusted. In periods where a different currency has been reported, this has been adjusted to match the current quoted currency.

Dividend Data

No cash dividends have been paid in the last year.

Vertex Pharmaceuticals Incorporated

Business Summary Feb 23, 2023

CORPORATE OVERVIEW. Vertex Pharmaceuticals (VRTX) is a biotechnology company that focuses on developing and commercializing therapies for the treatment of cystic fibrosis (“CF”). In 2020, all of VRTX’s product revenues came from sales of CF therapies. The company is also advancing research and development in other areas, including pain, sickle cell disease, beta-thalassemia, and alpha-1 antitrypsin deficiency. We believe that these programs have significant commercial potential. For example, VRTX’s program with CRISPR Therapeutics to develop clinical candidate CTX001 for sickle cell disease and beta-thalassemia is unique because it is one of the first human trials to use the powerful CRISPR/Cas-9 gene-editing technology.

MARKET BACKGROUND. CF is a life-shortening genetic disease affecting approximately 83,000 people across North America, Europe, and Australia. CF is caused by a defective or missing CFTR protein resulting from mutations in the CFTR gene. The absence of working CFTR proteins results in poor flow of salt and water into and out of cells in a number of organs, including the lungs. As a result, thick, sticky mucus builds up and blocks the passages in many organs, leading to a variety of symptoms. In particular, mucus builds up and clogs the airways in the lungs, causing chronic lung infections and progressive lung damage.

VRTX’s commercialized medicines include Symdeko/Symkevi, Orkambi, Kalydeco, and Trikafta/Kaftrio. Since the late 2019 launch of Trikafta, many patients that were previously on VRTX’s other CF therapies have switched over to Trikafta. Collectively, VRTX’s four CF drugs are approved to treat a large majority of CF patients in North America, Europe, and Australia. VRTX believes that its current therapies could address up to 90% of all CF patients. The company is pursuing genetic therapies to address the remaining 10% of people with CF.

COMPETITIVE DYNAMICS. A number of companies are seeking to identify and develop drug candidates for the treatment of CF, including public companies such as AbbVie, Eloxx Pharmaceuticals, Proteostasis Therapeutics, and Translate Bio as well as several private companies. Given VRTX’s dominance in the market for CF treatments, we believe that the company’s sales would face significant pressure if a competing therapy were successfully developed. In recent years, VRTX has committed significant research resources to and made significant investments in its pipeline of potential new therapies for alpha-1 antitrypsin deficiency, APOL1-mediated kidney diseases, pain, beta-thalassemia, sickle cell disease, muscular dystrophy, T1D, and other diseases. Many other pharmaceutical and biotechnology companies are also investing resources for the discovery and development of small molecules, gene therapies, and cell therapies to treat the same diseases for which VRTX is developing therapies.

IMPACT OF MAJOR DEVELOPMENTS. On October 15, 2020, VRTX announced after market hours that it was discontinuing its Phase 2 study of VX-814 in patients with alpha-1 antitrypsin deficiency (AATD), causing shares to trade down by 21% the next day. On June 10, 2021, VRTX announced that VX-864 for AATD achieved its primary endpoint, but the clinical benefit of the drug was not large enough to support advancement into late-stage development. Using the lessons from VX-814 and VX-864, we expect VRTX to take its next molecule for AATD into the clinic in 2022. Following the discontinuation of clinical candidates VX-864 and VX-814 for AAT deficiency, we expect investors to put increased pressure on VRTX to engage in business development activity. The company has indicated an interest in deals involving transformative mid-to late-stage assets, but management suggested that it was not a priority.

In late October 2019, VRTX’s triple combination therapy of VX-445, tezacaftor, and ivacaftor for CF (i.e., Trikafta) was approved by the FDA. This drug significantly expanded VRTX’s market opportunity to about 90% of the CF population, up from an estimated 58% of the CF population that was previously treatable with VRTX’s therapies. The key patents for Trikafta are expected to expire in 2037 in both the U.S. and Europe. The largest development prior to VRTX’s triple combination therapy was the launch of SYMDEKO in the U.S. in 2018.

Prior to that, in July 2015, VRTX received FDA approval for ORKAMBI to treat the underlying causes of cystic fibrosis in patients 12 and older with the F580del mutation. This approval was a significant milestone for VRTX because it enabled VRTX to become the clear market leader for the treatment of CF. VRTX subsequently obtained additional approvals for ORKAMBI to treat additional subsets of the CF patient population.

FINANCIAL TRENDS. For the year ending December 31, 2022, VRTX achieved revenue of \$8.9 billion, versus \$7.6 billion in 2021. Growth in 2022 was largely driven by the rapidly expanding sales of Trikafta (up almost \$2.0 billion in 2022). The company’s adjusted EPS was \$14.88 in 2022, up 14% from \$13.02 in the prior year. VRTX has generated growing levels of positive free cash flow for the past several years and has generally maintained a significant net cash position. As such, we believe that VRTX has substantial financial flexibility.

Corporate information

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R. Kewalramani

R. Kewalramani

Senior VP & Chief

Accounting Officer

K. C. Ambrose

Executive Chairman

J. M. Leiden

Executive VP & COO

Executive VP & Chief Legal Officer S. A. Arbuckle

J. Biller

Executive VP & CFO

C. F. Wagner

Board Members

A. M. Garber

R. Kewalramani

B. I. Sachs

S. N. Bhatia

D. L. McKenzie

S. P. Upadhyay

J. M. Leiden

T. C. Kearney

L. A. Carney

Y. Lee

M. G. McGlynn

Domicile

Massachusetts

Auditor

Ernst & Young LLP

Founded

1989

Employees

4,800

Stockholders

107

Vertex Pharmaceuticals Incorporated

Quantitative Evaluations					Expanded Ratio Analysis						
Fair Value Rank	1	2	3	4	5						
	LOWEST				HIGHEST						
	Based on CFRA's proprietary quantitative model, stocks are ranked from most overvalued [1] to most undervalued [5].										
Fair Value Calculation	USD	473.85	Analysis of the stock's current worth, based on CFRA's proprietary quantitative model suggests that VRTX is undervalued by USD 186.61 or 64.97%								
Volatility	LOW		AVERAGE		HIGH						
Technical Evaluation	NEUTRAL	Since October, 2022, the technical indicators for VRTX have been NEUTRAL"									
Insider Activity	UNFAVORABLE		NEUTRAL		FAVORABLE						
	Price/Sales					2022	2021	2020	2019		
	Price/EBITDA					8.38	7.54	10.03	13.71		
	Price/Pretax Income					16.53	14.20	19.68	43.61		
	P/E Ratio					17.68	20.90	19.97	40.92		
	Avg. Diluted Shares Outstg. [M]					19.41	16.87	22.90	41.08		
						259.10	259.90	263.40	260.70		
	Figures based on fiscal year-end price										
Key Growth Rates and Averages											
Past Growth Rate [%]					1 Year	3 Years	5 Years				
Net Income					41.84	41.33	66.01				
Sales					17.91	28.97	29.12				
Ratio Analysis [Annual Avg.]											
Net Margin [%]					37.20	37.27	41.78				
% LT Debt to Capitalization					N/A	N/A	N/A				
Return on Equity [%]					27.67	29.77	35.23				

Company Financials Fiscal year ending Dec 31										
Per Share Data [USD]	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Tangible Book Value	47.55	34.18	28.03	18.08	17.18	7.70	3.31	2.46	4.16	5.67
Free Cash Flow	15.33	9.35	11.52	5.82	4.62	2.35	0.73	-2.03	-2.65	-0.76
Earnings	12.82	9.01	10.29	4.51	8.09	1.04	-0.46	-2.31	-3.14	-2.24
Earnings [Normalized]	14.88	13.02	10.32	5.33	4.08	1.95	0.85	-1.11	-2.17	-1.58
Dividends	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payout Ratio [%]	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Prices: High	324.75	242.99	306.08	225.66	194.92	167.86	127.60	143.45	124.35	89.96
Prices: Low	214.66	176.36	197.47	160.95	144.07	73.34	71.46	97.45	59.79	40.34
P/E Ratio: High	21.80	18.70	29.70	42.30	47.80	86.10	NM	NM	NM	NM
P/E Ratio: Low	14.40	13.50	19.10	30.20	35.30	37.60	84.10	NM	NM	NM
Income Statement Analysis [Million USD]										
Revenue	8,931	7,574	6,206	4,163	3,048	2,489	1,702	1,032	580.00	1,212
Operating Income	4,378	3,892	3,054	1,202	664.00	393.00	11.00	-465.00	-641.00	-157.00
Depreciation + Amortization	148.00	126.00	110.00	107.00	72.00	61.00	61.00	62.00	63.00	48.00
Interest Expense	55.00	62.00	58.00	58.00	72.00	69.00	81.00	84.00	73.00	23.00
Pretax Income	4,232	2,730	3,117	1,395	600.00	-16.00	-67.00	-558.00	-735.00	-626.00
Effective Tax Rate	21.50	14.20	13.00	15.60	-247.70	684.10	-24.70	-5.40	-0.90	19.60
Net Income	3,322	2,342	2,712	1,177	2,097	263.00	NM	NM	NM	NM
Net Income [Normalized]	2,783	2,390	1,877	751.10	401.40	382.90	NM	NM	NM	NM
Balance Sheet and Other Financial Data [Million USD]										
Cash	10,778	7,525	6,659	3,808	3,168	2,089	1,435	1,042	1,387	1,465
Current Assets	13,235	9,561	8,133	4,823	3,843	2,649	1,832	1,407	1,547	1,589
Total Assets	18,151	13,433	11,752	8,319	6,246	3,546	2,897	2,499	2,335	2,319
Current Liabilities	2,742	2,142	1,878	1,335	1,120	807.00	793.00	506.00	368.00	398.00
Long Term Debt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	224.00	281.00	N/A
Total Capital	14,812	11,067	9,629	6,758	5,022	2,649	2,179	1,920	1,921	1,863
Capital Expenditures	205.00	235.00	260.00	75.00	95.00	99.00	57.00	45.00	51.00	110.00
Cash from Operations	4,130	2,644	3,254	1,569	1,270	845.00	236.00	-365.00	-573.00	-61.00
Current Ratio	4.83	4.46	4.33	3.61	3.43	3.28	2.31	2.78	4.20	3.99
% Long Term Debt of Capitalization	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.70	14.60	N/A
% Net Income of Revenue	37.20	30.90	43.70	28.30	68.80	10.60	-6.60	-53.90	NM	-36.70
% Return on Assets	17.33	19.32	19.02	10.32	8.48	7.62	0.26	-12.02	-17.23	-3.85
% Return on Equity	27.70	24.90	36.70	22.40	64.40	5.40	-6.90	-53.70	-60.50	-38.90

Source: S&P Global Market Intelligence. Data may be preliminary or restated; before results of discontinued operations/special items. Per share data adjusted for stock dividends; EPS diluted. E-Estimated. NA-Not Available. NM-Not Meaningful. NR-Not Ranked. UR-Under Review.

Vertex Pharmaceuticals Incorporated

Sub-Industry Outlook

We have a positive outlook on the biotechnology sub-industry (biotech), a historically defensive sub-industry, that has held up better on overall stock performance [year-to-date through October 31] than the broader market index. We expect to see solid drug sales growth driven by the continued adoption of many new and innovative therapies, a favorable M&A environment, and a low prevalence of patent expirations in 2022, although that rises in 2023. We also expect drugmakers to benefit from a return to normalcy since lower in-person physician visits during the pandemic had a negative impact on prescription growth. We believe that Covid-related activity will evolve to an endemic stage, versus a pandemic stage, which may lengthen the revenue stream, but likely at a more subdued level.

Given the slim Democratic hold in the Senate, it is nearly impossible to pass any sweeping legislation without bipartisan support due to the potential for filibuster. However, reducing drug costs has been a bipartisan issue in the past few years, and the recent passage of the Inflation Reduction Act includes new legislation that enables Medicare to directly negotiate pricing on the top 10 branded drugs. We see this having no near-term impact on pricing, but it would affect pricing effective January 2026, with determinations as to which drugs are included being determined starting in late 2023.

The Covid-19 pandemic created new commercial opportunities for many biopharmaceutical firms. According to the Milken Institute, there were 332 treatments and 276 vaccines in development for Covid-19 as of August 19, 2022. Many firms will be unsuccessful or too slow in developing therapies, leading to sunk costs. Yet, some firms are prospering enormously, notably vaccine developers such as Moderna and Pfizer/BioNTech. Due to the emergence of more dangerous Covid-19 variants, boosters started to be offered in the U.S. and other parts of the world to increase efficacy. Going forward, we think people will likely need repeat vaccinations to have lifelong immunity to Covid-19. In our view, Covid-19

vaccines will be a long-lasting source of revenue for lead vaccine developers.

In the long run, the growth of the biotech industry is dependent on the volume of new therapy approvals. The number of such approvals hit a high water mark in 2018 (61 approvals), although 2019-2021 levels have been in a range of 75%-90% of peak, indicating modest declines. Through September 30, 2022, however, the FDA has approved a mere 26 such novel drugs, which puts the agency on pace for just 35 approvals by year end, well below typical levels. New drugs usually take at least five years to reach peak sales levels, so if the current pace does not improve, it suggests some long-run headwinds beginning in 2027. We believe part of the recent decline may stem from more FDA resources being reallocated to Covid-related therapies, but if true, then Covid-19 entering an endemic phase may enable the FDA to return to pre-Covid activity levels.

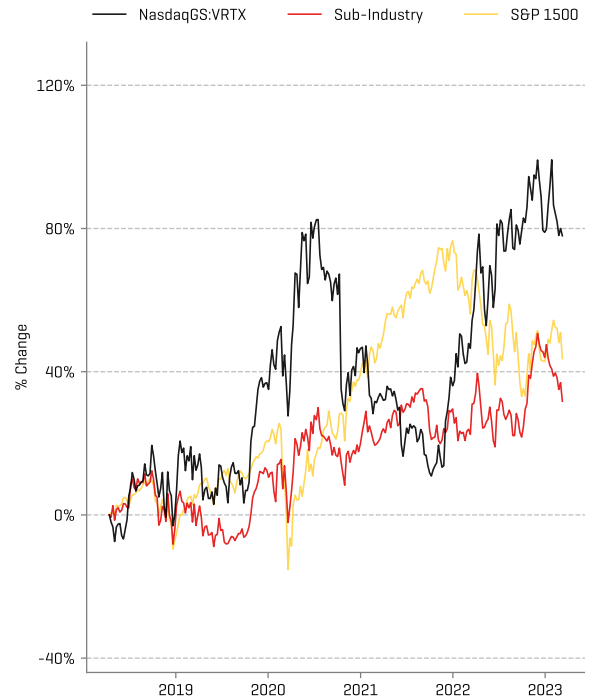
Year to date through November 11, the S&P 1500 Biotech Index was up 9.8%, vs. a 15.8% decline for the S&P 1500 Composite Index. In 2021, the Biotech Index rose 8.2%, vs. a 26.7% gain for the Composite Index.

/ Stewart Glickman, CFA

Industry Performance

GICS Sector: Health Care
Sub-Industry: Biotechnology

Based on S&P 1500 Indexes
Five-Year market price performance through Mar 11, 2023



NOTE: A sector chart appears when the sub-industry does not have sufficient historical index data.

All Sector & Sub-Industry information is based on the Global Industry Classification Standard (GICS).

Past performance is not an indication of future performance and should not be relied upon as such.

Source: CFRA, S&P Global Market Intelligence

Sub-Industry: Biotechnology Peer Group*: Biotechnology

Peer Group	Stock Symbol	Exchange	Currency	Recent Stock Price	Stk. Mkt. Cap. [M]	30-Day Price Chg. [%]	1-Year Price Chg. [%]	P/E Ratio	Fair Value Calc.	Yield on Equity [%]	Return on Equity [%]	LTD to Cap [%]
Vertex Pharmaceuticals Incorporated	VRTX	NasdaqGS	USD	286.88	73,754.0	-7.0	19.9	19.0	473.85	N/A	27.7	N/A
Alnylam Pharmaceuticals, Inc.	ALNY	NasdaqGS	USD	185.95	23,082.0	-15.8	14.6	NM	N/A	N/A	-526.1	87.5
Amgen Inc.	AMGN	NasdaqGS	USD	225.79	120,566.0	-7.5	-2.4	13.0	197.77	3.8	126.5	86.3
BeiGene, Ltd.	BGEN	NasdaqGS	USD	217.99	22,725.0	-12.5	11.5	NM	N/A	N/A	-38.1	4.2
BioNTech SE	BNTX	NasdaqGS	USD	127.29	30,934.0	-10.4	-9.2	3.0	N/A	N/A	76.2	N/A
Biogen Inc.	BIIB	NasdaqGS	USD	258.99	37,420.0	-11.1	28.0	15.0	253.37	N/A	24.3	31.2
Gilead Sciences, Inc.	GILD	NasdaqGS	USD	78.95	98,459.0	-8.2	33.8	11.0	73.96	3.8	21.6	48.8
Horizon Therapeutics Public Limited Company	HZNP	NasdaqGS	USD	109.65	25,049.0	-0.1	8.4	49.0	N/A	N/A	10.7	32.8
Moderna, Inc.	MRNA	NasdaqGS	USD	137.36	53,068.0	-19.7	-3.6	7.0	N/A	N/A	50.3	N/A
Regeneron Pharmaceuticals, Inc.	REGN	NasdaqGS	USD	743.75	79,377.0	-3.4	19.3	17.0	713.62	N/A	20.9	7.8
Seagen Inc.	SGEN	NasdaqGS	USD	173.64	32,434.0	26.3	23.6	NM	N/A	N/A	-20.8	N/A

*For Peer Groups with more than 10 companies or stocks, selection of issues is based on market capitalization.

NA-Not Available; NM-Not Meaningful.

Note: Peers are selected based on Global Industry Classification Standards and market capitalization. The peer group list includes companies with similar characteristics, but may not include all the companies within the same industry and/or that engage in the same line of business.

Vertex Pharmaceuticals Incorporated**Analyst Research Notes and other Company News****February 08, 2023**

04:28 PM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals Inc. [VRTX 293.33****]:

Our 12-month target price of \$337, cut \$15, reflects a 21.5x multiple applied to projected '24 EPS. The applied multiple is above VRTX's historical forward average, but we think a premium multiple is merited by VRTX's growing pipeline. We cut our '23 EPS estimate by \$0.78 to \$14.89 and start '24's at \$15.68. Q4 EPS of \$3.76 vs. \$3.37 beat the consensus view by \$0.25. Sales of Trikafta (a treatment for cystic fibrosis) hit \$2.02 billion in Q4, up 19%. Down the road, we note that VRTX's partnership with CRISPR Therapeutics [CRSP 53 NR] for a gene-editing approach to sickle cell disease and beta thalassemia is ongoing and, in our view, promising, although an impact in '24 is likely optimistic. Finally, VRTX's efforts in the acute pain market (a market estimated at \$4 billion) also look promising, as we see it as an underserved market. / Stewart Glickman, CFA

October 28, 2022

12:46 AM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals [VRTX 287.89****]:

Our 12-month target price of \$352, raised \$26, reflects a 22.5x multiple applied to our projected '23 EPS, in line with VRTX's historical forward average. We lift our '22 EPS estimate by \$0.78 to \$15.01, and '23's by \$1.17 to \$15.67. Q3 EPS of \$4.01, vs. \$3.56, beat the consensus view by \$0.37. VRTX has boosted its '22 revenue guidance to a revised range of \$8.8B - \$8.9B (at the midpoint, an increase of 1.7%). We see VRTX as a major player in the treatment of cystic fibrosis, and its prospective vanzacaftor triple is in Phase III trials, and the company is also working on a messenger RNA-based therapy with partner Moderna [MRNA 144 Buy]. VRTX also has irons in the fire on sickle cell disease and beta thalassemia. The company has just under \$10B in cash on the books, and adjusted operating margins in Q3 were 55%. While the '23-based free cash flow yield of 4.9% is slightly below peers, we think growth potential in core areas is high. / Stewart Glickman, CFA

August 10, 2022

10:02 AM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals [VRTX 297.53****]:

Our 12-month target price of \$326, raised \$54, reflects a 22.5x multiple of projected '23 EPS, in line with VRTX's historical forward average. We cut our '22 EPS estimate by \$0.04 to \$14.23, but lift '23's by \$0.20 to \$14.50. Q2 EPS of \$3.60, vs. \$3.11, beat the consensus view by \$0.10. VRTX's revenues from its cystic fibrosis franchise rose 22% year over year (the 2nd straight quarter with 22% growth). The company continues to develop drugs for treating sickle cell disease, kidney disease, acute pain, and type 1 diabetes, among others. VRTX was able to expand access for reimbursement in a number of countries as well as continued growth of Trikafta in the U.S., especially among children in the 6-11 age cohort. Management guidance on CF sales in '22 was boosted by \$0.2B, to a revised range of \$8.6B-\$8.8B, or about 15% growth at the midpoint. This growth potential does come with the tradeoff of higher R&D (now guided to a midpoint of \$3.05B, up 22%). / Stewart Glickman, CFA

May 12, 2022

03:59 PM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals [VRTX 237.42****]:

Our 12-month target price of \$272, cut \$12, reflects a 19x multiple applied to our revised '23 EPS estimate, slightly below VRTX's historical forward average. We cut our '22 EPS estimate by \$0.30 to \$14.27 and, similarly, '23's by \$1.29 to \$14.30. Q1 EPS of \$3.52, vs. \$2.98, missed the consensus view by \$0.02. VRTX's revenues from its cystic fibrosis franchise rose 22% year over year, as patient volumes rose, with stronger acceleration in international markets (+55%) than in the U.S. (+9%). VRTX was able to expand access for reimbursement in a number of countries as well as continued growth of Trikafta in the U.S. Management guidance on CF sales in '22 remains in a range of \$8.4B-\$8.6B, or about 12% at the midpoint. Other key catalysts include the Phase III trial for treatment of APOL1 kidney disease. / Stewart Glickman, CFA

January 27, 2022

01:41 PM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals [VRTX 232.93****]:

Our 12-month target price of \$284, raised \$17, reflects a 19.5x multiple of our revised '22 EPS estimate. The applied multiple is a modest discount to VRTX's recent historical forward average, which we think is reasonable in light of potential

competitive threats to VRTX's cystic fibrosis (CF) cornerstone franchise. We lift our '22 EPS estimate by \$1.00 to \$14.57, and start '23's at \$15.59. Q4 EPS of \$3.37, vs. \$2.51, beat the consensus view by \$0.08. We think VRTX will continue to drive innovation in CF treatment, including ongoing development in a new Phase III trial. Other key catalysts include an upcoming meeting with the FDA over a possible Phase III trial for treatment of APOL1 kidney disease. Nonetheless, at least for the near term, we note that about 75% of VRTX's revenues are driven by its CF franchise, where it currently enjoys a first-mover advantage, but developments in this space from rival AbbVie [ABBV 137 ****] bear watching as well. / Stewart Glickman, CFA

November 03, 2021

08:31 AM ET... CFRA Keeps Buy Opinion on Shares of Vertex Pharmaceuticals Inc. [VRTX 181.40****]:

Following solid Q3 results, we keep our target at \$267, 19.7x our '22 EPS estimate. We up our '21 EPS estimate by \$0.64 to \$13.00 and keep our '22 EPS estimate at \$13.57. VRTX posts Q3 EPS of \$3.56 vs. \$2.64 (+35% Y/Y), above the \$3.50 consensus and our estimate of \$3.09. Net product revenues rose 29% Y/Y to \$1.98B, \$115M above our estimate and \$120M above consensus on a remarkable 62% Y/Y increase in sales of VRTX's key drug Trikafta/Kaftrio (to treat cystic fibrosis, 78% of net product sales) driven by solid US sales performance and increased uptake internationally as the treatment is now approved and reimbursable in 20 countries. We expect the solid performance in Trikafta to continue driven by the recent strong launches in Europe and its recent uptake for kids age 6-11 in the US, while its acceptance for priority review in Canada for the same age group is positive. In the near-term increased uptake of Trikafta will be the main catalyst and long-term the focus will continue to be on pipeline developments. / Sel Hardy

July 30, 2021

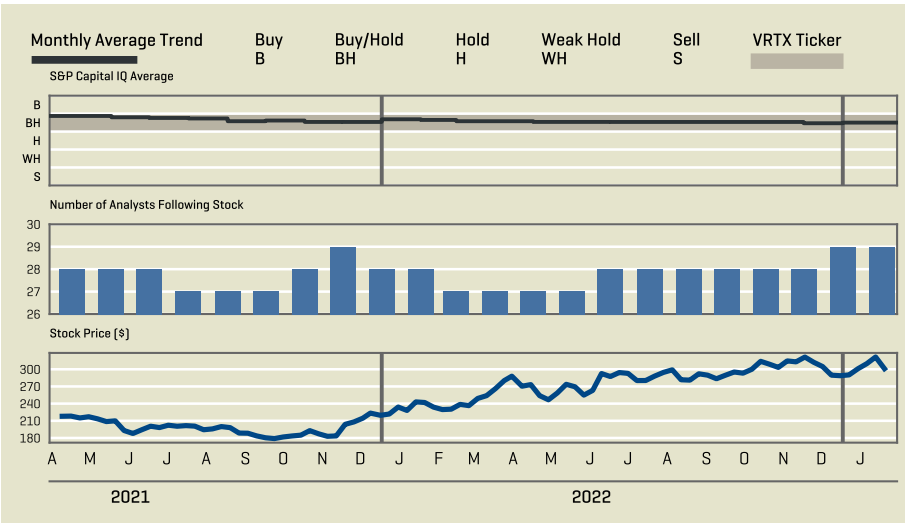
04:48 AM ET... CFRA Maintains Buy Opinion on Shares of Vertex Pharmaceuticals Inc. [VRTX 200.95****]:

We keep our target price at \$267, reflecting a ratio of 20.9x our next-12-month EPS of \$12.79. Q2 EPS of \$3.11 vs. \$2.61 beat our estimate of \$2.92 due to better-than-expected expense management. We raise our 2021 EPS estimate to \$12.36 from \$12.17. VRTX lifted its product revenue guidance to a range of \$7.2 billion to 7.4 billion from a prior range of \$6.7 billion to \$6.9 billion, which came as no surprise to us as we have been more bullish than the Street about Trikafta's prospects. Q2 sales of \$1.79 billion exceeded the consensus expectation by 3.9% as Trikafta/Kaftrio sales grew 37% Y/Y to \$1.79 billion. Net product revenues increased 4% Y/Y in the U.S. to \$1.26 billion while international sales grew an impressive 71% Y/Y (up from 43% in 1Q21) to \$536 million due to the strong uptake of Kaftrio in Europe. Despite the strong commercial performance of VRTX's cystic fibrosis franchise, investors are likely focused on business development opportunities given recent pipeline disappointments. / Kevin Huang, CFA

Note: Research notes reflect CFRA's published opinions and analysis on the stock at the time the note was published. The note reflects the views of the equity analyst as of the date and time indicated in the note, and may not reflect CFRA's current view on the company.

Vertex Pharmaceuticals Incorporated

Analysts Recommendations



	No. of Recommendations	% of Total	1 Mo.Prior	3 Mos.Prior
Buy	11	38	11	10
Buy/Hold	7	24	7	7
Hold	11	38	11	11
Weak hold	0	0	0	0
Sell	0	0	0	0
No Opinion	0	0	0	0
Total	29	100	29	28

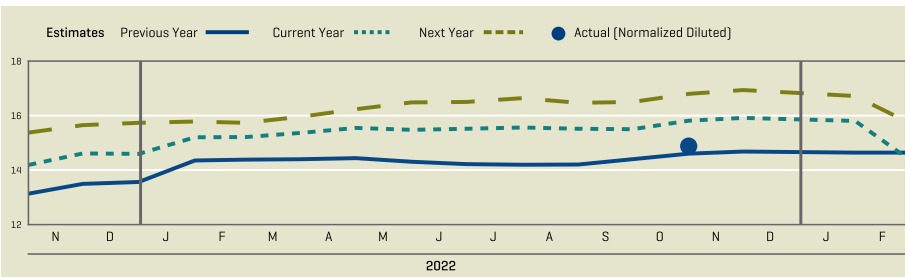
Wall Street Consensus Opinion

Buy/Hold

Wall Street Consensus vs. Performance

For fiscal year 2023, analysts estimate that VRTX will earn USD 14.48. For fiscal year 2024, analysts estimate that VRTX's earnings per share will grow by 9.09% to USD 15.79.

Wall Street Consensus Estimates



Fiscal Year	Avg Est.	High Est.	Low Est.	# of Est.	Est. P/E
2024	15.79	20.83	13.02	22	18.16
2023	14.48	18.32	13.13	24	19.81
2024 vs. 2023	▲ 9%	▲ 14%	▼ -1%	▼ -8%	▼ -8%
Q1'24	3.44	3.81	3.06	2	83.52
Q1'23	3.10	3.67	2.68	20	92.54
Q1'24 vs. Q1'23	▲ 11%	▲ 4%	▲ 14%	▼ -90%	▼ -10%

Forecasts are not reliable indicator of future performance.

Note: A company's earnings outlook plays a major part in any investment decision. S&P Global Market Intelligence organizes the earnings estimates of over 2,300 Wall Street analysts, and provides their consensus of earnings over the next two years, as well as how those earnings estimates have changed over time. Note that the information provided in relation to consensus estimates is not intended to predict actual results and should not be taken as a reliable indicator of future performance.

Note: For all tables, graphs and charts in this report that do not cite any reference or source, the source is S&P Global Market Intelligence.

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Glossary

STARS

Since January 1, 1987, CFRA Equity and Fund Research Services, and its predecessor S&P Capital IQ Equity Research has ranked a universe of U.S. common stocks, ADRs [American Depositary Receipts], and ADSs [American Depositary Shares] based on a given equity's potential for future performance. Similarly, we have ranked Asian and European equities since June 30, 2002. Under proprietary STARS (Stock Appreciation Ranking System), equity analysts rank equities according to their individual forecast of an equity's future total return potential versus the expected total return of a relevant benchmark [e.g., a regional index [MSCI AC Asia Pacific Index, MSCI AC Europe Index or S&P 500® Index]], based on a 12-month time horizon. STARS was designed to help investors looking to put their investment decisions in perspective. Data used to assist in determining the STARS ranking may be the result of the analyst's own models as well as internal proprietary models resulting from dynamic data inputs.

S&P Global Market Intelligence's Quality Ranking

[also known as **S&P Capital IQ Earnings & Dividend Rankings**] - Growth and S&P Capital IQ Earnings & Dividend Rankings stability of earnings and dividends are deemed key elements in establishing S&P Global Market Intelligence's earnings and dividend rankings for common stocks, which are designed to capsize the nature of this record in a single symbol. It should be noted, however, that the process also takes into consideration certain adjustments and modifications deemed desirable in establishing such rankings. The final score for each stock is measured against a scoring matrix determined by analysis of the scores of a large and representative sample of stocks. The range of scores in the array of this sample has been aligned with the following ladder of rankings:

A+	Highest	B	Below Average
A	High	B-	Lower
A	Above	C	Lowest
B+	Average	D	In Reorganization
NC	Not Ranked		

EPS Estimates

CFRA's earnings per share (EPS) estimates reflect analyst projections of future EPS from continuing operations, and generally exclude various items that are viewed as special, non-recurring, or extraordinary. Also, EPS estimates reflect either forecasts of equity analysts; or, the consensus [average] EPS estimate, which are independently compiled by S&P Global Market Intelligence, a data provider to CFRA. Among the items typically excluded from EPS estimates are asset sale gains; impairment, restructuring or merger-related charges; legal and insurance settlements; in process research and development expenses; gains or losses on the extinguishment of debt; the cumulative effect of accounting changes; and earnings related to operations that have been classified by the company as discontinued. The inclusion of some items, such as stock option expense and recurring types of other charges, may vary, and depend on such factors as industry practice, analyst judgment, and the extent to which some types of data is disclosed by companies.

12-Month Target Price

The equity analyst's projection of the market price a given security will command 12 months hence, based on a combination of intrinsic, relative, and private market valuation metrics, including Fair Value.

Abbreviations Used in Equity Research Reports

CAGR	- Compound Annual Growth Rate
CAPEX	- Capital Expenditures
CY	- Calendar Year
DCF	- Discounted Cash Flow
DDM	- Dividend Discount Model
EBIT	- Earnings Before Interest and Taxes
EBITDA	- Earnings Before Interest, Taxes, Depreciation & Amortization
EPS	- Earnings Per Share
EV	- Enterprise Value
FCF	- Free Cash Flow
FFO	- Funds From Operations
FY	- Fiscal Year
P/E	- Price/Earnings
P/NAV	- Price to Net Asset Value
PEG Ratio	- P/E-to-Growth Ratio
PV	- Present Value
R&D	- Research & Development
ROCE	- Return on Capital Employed
ROE	- Return on Equity
ROI	- Return on Investment
ROIC	- Return on Invested Capital
ROA	- Return on Assets
SG&A	- Selling, General & Administrative Expenses
SOTP	- Sum-of-The-Parts
WACC	- Weighted Average Cost of Capital

Dividends on American Depositary Receipts (ADRs) and American Depositary Shares (ADSs) are net of taxes (paid in the country of origin).

Qualitative Risk Assessment

Reflects an equity analyst's view of a given company's operational risk, or the risk of a firm's ability to continue as an ongoing concern. The Qualitative Risk Assessment is a relative ranking to the U.S. STARS universe, and should be reflective of risk factors related to a company's operations, as opposed to risk and volatility measures associated with share prices. For an ETF this reflects on a capitalization-weighted basis, the average qualitative risk assessment assigned to holdings of the fund.

STARS Ranking system and definition:

★★★★★ 5-STARS (Strong Buy):

Total return is expected to outperform the total return of a relevant benchmark, by a notable margin over the coming 12 months, with shares rising in price on an absolute basis.

★★★★ 4-STARS (Buy):

Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months.

★★★ 3-STARS (Hold):

Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months.

★★★ 2-STARS (Sell):

Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months.

★★★ 1-STAR (Strong Sell):

Total return is expected to underperform the total return of a relevant benchmark by a notable margin over the coming 12 months, with shares falling in price on an absolute basis.

Relevant benchmarks:

In North America, the relevant benchmark is the S&P 500 Index, in Europe and in Asia, the relevant benchmarks are the MSCI AC Europe Index and the MSCI AC Asia Pacific Index, respectively.

Vertex Pharmaceuticals Incorporated

Disclosures

Stocks are ranked in accordance with the following ranking methodologies:

STARS Stock Reports:

Qualitative STARS rankings are determined and assigned by equity analysts. For reports containing STARS rankings refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports:

Quantitative rankings are determined by ranking a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative rankings refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

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STARS Stock Reports:

Global STARS Distribution as of December 31, 2022

Ranking	North America	Europe	Asia	Global
Buy	37.3%	36.2%	52.6%	40.1%
Hold	54.3%	55.7%	38.6%	51.5%
Sell	8.4%	8.0%	8.8%	8.4%
Total	100.0%	100.0%	100.0%	100.0%

Analyst Certification:

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