BofA SECURITIES

Moderna

Initial Thoughts on 4Q23 Results

Maintain Rating: NEUTRAL | PO: 120.00 USD | Price: 87.59 USD

COVID-19 vaccine in-line; new product cycle key

Moderna's 4Q print was in-line with expectations following its pre-announcement earlier this year (see our conference takeaways here), with COVID-19 vaccine revenue at \$2.8B (+\$251M cons) and an EPS beat at \$0.55 (+\$1.56) driven in part by a more favorable manufacturing cost structure. Looking to 2024, Moderna maintained its product sales guidance at \$4B (BofAe \$4.1B, cons \$4.1B) with revenue weighted towards 2H due to the 1) seasonality of COVID-19 sales, and 2) expected approval of Moderna's RSV vaccine, mRNA-1345, in 1H24. Critically though, we didn't receive any updates on the timing for the phase 3 interim readout for Moderna's CMV vaccine, mRNA-1647, where investors expect results in mid-2024, but as the trial is event driven, timing is still unclear. Indeed, given the lack of revenue durability from Moderna's COVID-19 vaccine, even with more favorable market share, we'd say investors are particularly focused on its next leg of growth with its RSV, CMV, and INT assets. Nevertheless, we remain of the opinion that it will be challenging for Moderna to overcome profitability concerns, with investors still skeptical over a "return to organic sales growth in 2025." We maintain Neutral and our \$120 PO as we like the optionality of the platform, but a lack of clarity into near-term commercial dynamics, but there's still a lack of clarity into near term commercial dynamics.

We anticipate the top questions going into the call will be on commercial implications of Moderna's RSV vaccine, mRNA-1345, waning vaccine efficacy (see <u>our thoughts on the follow up results here</u>) and any color on discussions with regulators on the potential for accelerated approval for Moderna's INT, mRNA-4157, in combination with Keytruda for adjuvant melanoma (currently in phase 3). *Moderna's call is TODAY at 8:00 am ET. Please see the company's website for the webcast.*

Exhibit 1: Moderna 4Q23 Variance Table Moderna 4Q23 estimates vs. consensus

	4Q23 Performance			4Q23 Growth		4Q23 Variance		
\$ in millions	4Q23	vs. Cons	BofA	Cons	Q/Q	Y/Y	BofA	Cons
Spikevax	2,793	BEAT	2,208	2,542	59%	-43%	585	251
Total Revenue	2,811	BEAT	2,668	2,501	54%	-45%	143	310
COGS	929		1,366	1,201	-59%	-52%	(437)	(272)
Gross Profit	1,882		1,302	1,300	-559%	-41%	580	582
SG&A	470		483	443	6%	25%	(13)	27
R&D	1,406		1,372	1,360	21%	16%	34	46
Operating Income	6		(553)	(484)	-100%	-100%	559	490
Pre-Tax Income	64		97	69	19%	-15%	(33)	(5)
Taxes	(147)		(25)	(76)	-109%	-177%	(122)	(71)
Net Income	217	BEAT	(430)	(387)	-106%	-85%	647	604
EPS	\$0.55	BEAT	-\$1.13	-\$1.01	-106%	-85%	\$1.68	\$1.56
2024 Guidance				20	23	Growth	Midpoint V	ariance
	Low	High		BofA	Consensus	Y/Y	BofA	Consensus
Total Revenue (\$M)	4,000	4,000	MAINTAINED	4,228	4,334	-41%	(288)	(334)

Source: BofA Global Research, Visible Alpha, Bloomberg

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Refer to important disclosures on page 3 to 5. Analyst Certification on page 2. Price

Objective Basis/Risk on page 2.

22 February 2024

Equity

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Stock Data

Price Objective 120.00 USD Date Established 3-Jan-2024 Investment Opinion C-2-9 52-Week Range 62.55 USD - 163.24 USD 33,397 USD / 381.3 Mrkt Val (mn) / Shares Out (mn) 87.8% Average Daily Value (mn) 332 67 USD BofA Ticker / Exchange MRNA / NAS Bloomberg / Reuters MRNA US / MRNA.OO ROF (2024F) -22.2% Net Dbt to Eqty (Dec-2023A) -10.8% ESGMeter™ High

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Abbreviations:

RSV: respiratory syncytial virus

CMV: cytomegalovirus

INT: individualized neoantigen therapy

87 59 USD

Price objective basis & risk

Moderna (MRNA)

Our PO of \$120 is based on a probability-adjusted NPV of six different parts including prophylactic vaccines (\$91/share), systemic secreted cell surface therapeutics (\$1/share), cancer vaccines (\$4/share), intratumoral immune-oncology (\$2/share), cardiovascular diseases (\$0/share) and systemic intracellular therapeutics (\$1 share), and net cash (\$22/share). We estimate sales of 46 pipeline programs that are slated to move forward with probability of success ranging from 6% to 95%. We use a WACC of 10% and terminal growth rate of -30%.

Upside risks to our PO are: 1) faster than expected pipeline development, 2) cleaner than expected safety findings, 3) accelerated product approvals, 4) stronger than expected launches, 5) lower competition, 6) moderating cash burn, and 7) potential upside from coronavirus vaccine program.

Downside risks to our PO are: 1) lower than expected revenues from the COVID-19 program, 2) unexpected safety findings, 3) slower than expected pipeline development/approvals, 4) more intense competition, and 5) accelerating cash burn.

Analyst Certification

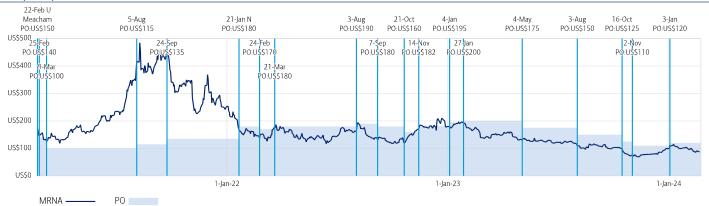
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Moderna (MRNA) Price Chart



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

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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%
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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%

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