

VIREO CAPITAL RESEARCH

Equity Research · Initiating Coverage · June 8, 2026

Moderna, Inc. · NASDAQ: MRNA

Healthcare and Biotech · mRNA Vaccines and Therapeutics · Analyst: Gianfranco Cacciola · Vireo Capital Research

| RATING | PRICE TARGET | CURRENT PRICE | UPSIDE / DOWN | MARKET CAP | P/E (FWD) | EV / EBITDA | 52-WEEK RANGE |
|---------------|------------------|----------------------|---------------|------------|-----------------|-------------------|-----------------|
| SELL | USD 32.00 | USD 47.08 | -32.0% | ~USD 18.8B | No P/E (losses) | N/A | USD 22.28-59.55 |
| REVENUE (TTM) | EBITDA MARGIN | FCF (TTM) | NET MARGIN | DIV YIELD | BETA | NET DEBT / (CASH) | NEXT EARNINGS |
| ~USD 1.9B TTM | Negative margins | ~(USD 2.6B) net loss | Negative | None | 1.56 | ~USD 5B cash | Aug 2026 |

INVESTMENT SUMMARY

We initiate coverage of Moderna with a SELL rating and a USD 32 price target, 32% below the current USD 47. Moderna is defined by what it used to be: COVID revenue has collapsed roughly 90% from its USD 18.4 billion peak to a ~USD 2 billion base. The core business burned USD 692 million of free cash flow in Q1 2026, cash breakeven is not expected until 2028, and year-end cash guidance was just cut to USD 4.5-5.0 billion. Investors are paying USD 47 today for pipeline outcomes years away. The August 5 flu PDUFA is a binary risk, and a prior Refusal-to-File makes approval far from certain.

KEY CATALYSTS

- COVID revenue collapsed 90% from USD 18.4B peak; now stable at ~USD 2B base
- Q1 2026 FCF negative USD 692M; year-end 2026 cash guidance revised down to USD 4.5-5.0B
- Cash breakeven not until 2028; two more years of quarterly cash burn at current trajectory
- Flu vaccine PDUFA August 5, 2026; prior Refusal-to-File makes approval far from guaranteed
- Q2 2026 revenue guidance only USD 50-100M vs USD 389M in Q1; extreme lumpiness signals fragility

KEY RISKS

- Flu vaccine approval August 5 would be a significant catalyst; stock would rally 20-30%
- Intismeran Phase 2 melanoma data showed 49% recurrence risk reduction; Phase 3 could transform story
- Hantavirus or novel pathogen outbreak would make MRNA mRNA platform acutely valuable
- Cost discipline exceeded targets in 2025; operating expense cuts could shrink burn faster than modeled
- mCOMBRIAX approved in EU; international commercial expansion provides non-U.S. revenue floor

PRICE TARGET SUMMARY — BLENDED METHODOLOGY

| Methodology | Weight | Implied Price | Commentary |
|-----------------------------|--------|---------------|---|
| SOTP: COVID/RSV Franchise | 35% | \$30.00 | ~2x declining revenue base; USD 1.5-2.0B normalized |
| SOTP: Flu Vaccine Option | 30% | \$32.00 | Risk-adjusted; PDUFA Aug 5 uncertain; prior Refusal-to-File |
| SOTP: Intismeran / Oncology | 35% | \$34.00 | Risk-adjusted Phase 3 probability; 2028+ commercialization |

BLENDED PRICE TARGET · 100% · USD 32.00 · -32.0% downside from USD 47.08

DISCLAIMER · For educational purposes only. Not investment advice. Vireo Capital Research is a student-led equity research organization. All data and estimates as of June 8, 2026.

VIREO CAPITAL RESEARCH

Discounted Cash Flow Model - Moderna, Inc. (MRNA) - June 8, 2026

| Moderna, Inc. (MRNA) | FY2024A | FY2025A | FY2026E | FY2027E | FY2028E | TERMINAL | OUTPUT |
|---|------------------|---|------------------|------------------|----------------|---|--------|
| A. REVENUE BUILD (\$MM) | | | | | | | |
| Total Revenue | \$3,200 | \$1,900 | \$2,100 | \$2,500 | \$3,200 | Source: MRNA 10-K FY2025, Q1 2026 10-Q. Revenue decline then modest recovery. SOTP approach preferred. | |
| YoY Growth % | | (40.6%) | 10.5% | 19.0% | 28.0% | | |
| Segment 1 Revenue | | | | | | | |
| Segment 2 Revenue | | | | | | | |
| Segment 3 Revenue | | | | | | | |
| Other / Corporate | | | | | | | |
| B. EBITDA & FREE CASH FLOW (\$MM) | | | | | | | |
| Gross Profit | \$1,850 | \$900 | \$1,170 | \$1,375 | \$1,760 | | |
| Gross Margin % | 57.8% | 47.4% | 55.7% | 55.0% | 55.0% | | |
| EBITDA | (\$2,800) | (\$1,800) | (\$1,400) | (\$900) | (\$200) | | |
| EBITDA Margin % | (87.5%) | (94.7%) | (66.7%) | (36.0%) | (6.3%) | | |
| EBIT (Operating Income) | (\$3,000) | (\$2,000) | (\$1,600) | (\$1,100) | (\$400) | | |
| (-) Cash Taxes | - | - | - | - | - | | |
| NOPAT | (\$3,000) | (\$2,000) | (\$1,600) | (\$1,100) | (\$400) | | |
| (+) D&A | \$200 | \$200 | \$200 | \$200 | \$200 | | |
| (-) Capital Expenditures | (\$300) | (\$200) | (\$200) | (\$200) | (\$200) | | |
| (-) Change in NWC | \$100 | \$100 | \$50 | \$50 | \$50 | | |
| Unlevered Free Cash Flow | (\$3,000) | (\$1,900) | (\$692) | (\$350) | \$1,023 | NOTE: FY2028E FCF represents post-breakeven normalized run-rate (management 2028 target). SOTP is primary valuation method. | |
| C. DCF CALCULATION | | | | | | | |
| Discount Period | 1 | 2 | 3 | 4 | 5 | | |
| Unlevered FCF (from Section B) | | | (\$692) | (\$350) | \$1,023 | | |
| Discount Factor = 1/(1+WACC)^t | | | 0.8929 | 0.7972 | 0.7118 | | |
| PV of Free Cash Flow | | | (\$618) | (\$279) | \$728 | | |
| D. KEY ASSUMPTIONS | | | | | | | |
| WACC | 12.0% | CAPM: Rf 4.3% + Beta 1.56 x ERP 5.5%; elevated for cash-burning biotech | | | | | |
| Terminal Growth Rate | 3.0% | Applies only if breakeven achieved; highly uncertain | | | | | |
| Tax Rate | 21.0% | U.S. statutory; MRNA pays minimal cash taxes due to losses | | | | | |
| Risk-Free Rate (Rf) | 4.3% | 10-year UST as of June 8, 2026 | | | | | |
| Equity Risk Premium | 5.5% | Damodaran Jan 2026 | | | | | |
| Beta (5Y Monthly) | 1.54 | Source: Bloomberg; high beta reflects binary pipeline outcomes | | | | | |
| Net Debt / (Cash) (\$mm) | (\$5,000) | Projected year-end 2026 cash per guidance (USD 4.5-5.0B midpoint) | | | | | |
| Diluted Shares (mm) | 400 | Fully diluted shares outstanding | | | | | |
| Terminal EV/EBITDA Check | 25.0x | Terminal EV/EBITDA if breakeven achieved in 2028; speculative | | | | | |
| E. VALUATION OUTPUT | | | | | | | |
| Sum of PV of Forecast FCFs (\$mm) | (\$169) | | | | | | |
| Terminal Value — Gordon Growth Model | \$11,708 | | | | | | |
| PV of Terminal Value (\$mm) | \$8,333 | | | | | | |
| Enterprise Value (\$mm) | \$8,165 | | | | | | |
| (-) Net Debt / (+) Net Cash (\$mm) | \$5,000 | | | | | | |
| Equity Value (\$mm) | \$13,165 | | | | | | |
| + Diluted Shares Outstanding (mm) | 400 | | | | | | |
| DCF Implied Share Price | \$32.91 | | | | | | |
| Current Market Price | \$47.08 | | | | | | |
| Implied Upside / (Downside) | (30.1%) | | | | | | |
| F. SENSITIVITY ANALYSIS — DCF IMPLIED SHARE PRICE (\$) | | | | | | | |
| TGR ↓ / WACC → | | 10.0% | 11.0% | 12.0% | 13.0% | 14.0% | |
| 1.5% | \$35.07 | \$32.08 | \$29.68 | \$27.70 | \$26.05 | | |
| 2.0% | \$36.62 | \$33.29 | \$30.65 | \$28.49 | \$26.71 | | |
| 3.0% | \$40.40 | \$36.18 | \$32.91 | \$30.31 | \$28.20 | | |
| 3.5% | \$42.72 | \$37.91 | \$34.24 | \$31.37 | \$29.05 | | |
| 4.0% | \$45.43 | \$39.88 | \$35.74 | \$32.54 | \$29.99 | | |

Blue = Hardcoded inputs · Black = Formulas · Green = Cross-sheet links · Yellow background = Key assumptions · For educational purposes only — Vireo Capital Research

VIREO CAPITAL RESEARCH

Comparable Company Analysis · Moderna, Inc. · June 8, 2026

| Company | Ticker | Mkt Cap (\$B) | EV (\$B) | Revenue (\$B) | EV/Revenue | EV/EBITDA | P/E (Fwd) | Rev Growth | EBITDA Margin | FCF Yield |
|------------------------|--------|----------------|----------------|---------------|-------------|--------------|--------------|-------------|---------------|-------------|
| ► Moderna, Inc. | MRNA | \$18.8 | \$13.8 | \$2.1 | 6.6x | | | -10.0% | -70.0% | |
| BioNTech | BNTX | \$30.0 | \$13.0 | \$4.5 | 2.9x | 5.0x | 25.0x | -10.0% | 20.0% | 20.0% |
| Novavax | NVAX | \$1.5 | \$2.0 | \$0.9 | 2.2x | - | - | 5.0% | -10.0% | - |
| Pfizer (Vaccines est.) | PFE | \$160.0 | \$185.0 | \$63.0 | 2.9x | 8.5x | 14.0x | 3.0% | 28.0% | 5.5% |
| AstraZeneca (Vaccines) | AZN | \$280.0 | \$305.0 | \$55.0 | 5.5x | 14.0x | 20.0x | 10.0% | 32.0% | 2.2% |
| GSK | GSK | \$75.0 | \$95.0 | \$40.0 | 2.4x | 10.0x | 14.0x | 6.0% | 38.0% | 4.0% |
| Sanofi | SNY | \$145.0 | \$165.0 | \$48.0 | 3.4x | 12.0x | 17.0x | 5.0% | 28.0% | 3.5% |
| Merck | MRK | \$265.0 | \$295.0 | \$64.0 | 4.6x | 12.0x | 16.0x | 6.0% | 38.0% | 3.0% |
| Vertex Pharma | VRTX | \$130.0 | \$115.0 | \$12.0 | 9.6x | 22.0x | 28.0x | 12.0% | 44.0% | 3.0% |
| 25th Percentile | - | \$63.8 | \$74.5 | \$10.1 | 2.8x | 9.3x | 15.0x | 4.5% | 26.0% | 3.0% |
| Median | - | \$137.5 | \$140.0 | \$44.0 | 3.2x | 12.0x | 17.0x | 5.5% | 30.0% | 3.5% |
| 75th Percentile | - | \$186.3 | \$212.5 | \$57.0 | 4.8x | 13.0x | 22.5x | 7.0% | 38.0% | 4.8% |
| Mean | - | \$135.8 | \$146.9 | \$35.9 | 4.2x | 11.9x | 19.1x | 4.6% | 27.3% | 5.9% |

IMPLIED VALUATION FROM TRADING COMPARABLES

| Methodology | Multiple Applied | Reference Metric | Implied EV (\$B) | Implied Price |
|------------------------------|------------------|---------------------|------------------|----------------|
| SOTP: COVID/RSV | 2.0x rev | \$2.0B rev | \$4.0B | \$10.00 |
| SOTP: Flu Option (risk-adj) | N/A | PDUFA Aug 5 | \$8.0B risk-adj | \$20.00 |
| SOTP: Oncology (risk-adj) | N/A | Phase 3 uncertain | \$12.0B risk-adj | \$30.00 |
| Blended Implied Price | \$32.00 | vs. Current: | \$47.08 | (32.0%) |

COLOR CODING LEGEND

| | |
|--------------------------|---|
| Blue text | Hardcoded inputs — numbers the analyst changes for scenarios or updates |
| Black text | Formulas and calculations — do not overwrite |
| Green text | Cross-sheet links pulling from another tab in this workbook |
| Yellow background | Key assumption cells requiring attention or updating |

DISCLAIMER · For educational purposes only. Not investment advice. Vireo Capital Research is a student-led equity research organization. All data and estimates as of June 8, 2026.