

Limoneira Company (LMNR – \$15.12*)

Diversified Industrials: AgTech Buy; \$24.00 PT; \$271.8M Market Cap

Company Update Friday, September 8, 2023

Discovery Group =

3Q Beat on Top/Miss on Bottom; Lemon Prices Firm on Low Supply Due to Weather; Brokered Fruit Helps Beat; RE Sales To Pick Up Given New Interest; Buy, \$24 PT

Raj Sharma 310-689-2221

rsharma@brileyfin.com

STOCK DATA					
Market Cap (mil)	\$271.8				
52-Week Range	\$11.00-\$17.90				
3-Month ADTV	101,253				
Shares Outstanding (mil)	18.0				
Dividend Yield	1.99%				
Float (%)	93.4				
Short Interest	567,297				
Enterprise Val. (mil)	\$312.0				
Fiscal Year-End	October				

FINANCIAL DATA							
Rev. (mil)	2022A	2023E	2024E				
1Q	\$39.3	\$37.9A	-				
2Q	\$46.8	\$48.1A	-				
3Q	\$58.9	\$52.5A	-				
Prior 3Q	-	\$46.8	-				
4Q	\$39.7	\$40.6	-				
Prior 4Q	-	\$38.3	-				
FY	\$184.6	\$179.1	\$215.3				
Prior FY	-	\$171.0	\$206.9				
Adj. EBITDA	2022A	2023E	2024E				
1Q	\$(6.2)	\$(7.9)A	-				
2Q	\$5.8	\$6.2A	-				
3Q	\$14.2	\$2.8A	-				
Prior 3Q	-	\$5.3	-				
4Q	\$(3.8)	\$(1.7)	-				
Prior 4Q	-	\$1.5	-				
FY	\$11.9	\$(0.6)	\$15.1				
Prior FY	-	\$5.1	\$13.2				

BALANCE SHEET DATA				
	3Q23			
Cash & Equivalents	\$11.0			
Long-Term Debt	\$40.8			
Shareholders' Equity	\$195.4			
Debt/Cap	17.3%			
\$ in millions.				

Summary and Recommendation

Buy-Rated Limoneira Company (LMNR-\$24 PT) reported 3Q23 results on 9/7 AMC with generally inline results with a beat on the top and a slight miss on the bottom, revs./adj. EBITDA of \$52.5M/\$2.8M versus Street at \$49.7M/\$6M. Revs were down 11% Y/Y, with adj. EBITDA of \$2.8M, down from \$14.8M LY. 3Q displayed weaker lemon prices and lower utilization due to heavy rains in California earlier this year, delaying harvest and causing pest damage. From lack of lemons, prices have been firming up from early August, expecting to lift pricing for the winter. Avocado revs were impacted heavily by the same issues plaguing lemons. Brokered lemon revs surprised to the upside with \$8.8M for 3Q versus \$5M LY, indicating traction in its packing/ shipping pivot. Earnings were impacted by higher growing & packing costs, partially offset by decreases in third-party grower and supplier costs. Farm management revs also surprised to the positive with \$5.4M in revs for 3Q. Additional fallowing was done in AZ, leading to a further monetization of water assets in continuation of its efforts to exit non-strategic assets. Management indicated that lemon prices have so far this quarter been elevated to the low 20s, indicating higher EBITDA profits if prices are sticky. Continued growth in brokered revs from suppliers in South America should complement increased packing/shipping from Chile. LMNR had discussed the possibility of higher revenues from selling water rights in Yuma, AZ, where it has class 3 water rights to the Colorado River. LMNR will get \$1.3M/year from 600 acres of fallowed land (out of its 1,300 acres), which could triple to quadruple from further price increases. LMNR should be able to show increased lot sales at higher prices at its Harvest development aided by land sales at its Phase 2 area as interest in its land resurfaces. LMNR lowered FY23E to a range of 4.7M-5.0M lemon cartons and reduced avocado production to 3.8M pounds this year. We maintain a Buy with a \$24 PT on LMNR's prospects of land and waterrights monetization and rising third-party lemon volumes at firming lemon prices.

Key Points

- · Generally inline 2Q; low lemon/avocado prices impact results. 2Q was impacted by the inability to harvest due to inclement weather and intense competition from Mexican growers, though that is looking to ease now. LMNR sold 1.35M lemon cartons at an average price of \$17.92 per carton, with ~50% coming from outside growers. LMNR sold 2.8M lbs of avocados at an average price of \$0.99 per lb, up significantly from 0.9M lbs in the last quarter. There were some marginal orange and specialty citrus sales that would not continue in quarters ahead due to the sale of all orange and citrus growing land in the Northern counties. LMNR announced further fallowing of its land in Yuma, AZ, generating higher revenues from the sale of water rights in Yuma, AZ, where it has class 3 water rights to the Colorado River. With the Department of Interior instructing seven states that derive water from the Colorado River to reduce intake by a third, these states would be forced to go to those with senior water rights (like class 3 LMNR has) so farmed land could be fallowed to make water available for urban use. Overall, lemon prices are looking to firm up, continuing the trend from early August and likely to provide a lift for winter lemon prices. We assume lemon prices to stay around \$20 per carton for the next several quarters. LMNR ended 3Q with \$11M in cash and \$40.8M in total debt.
- Asset-light, pack & ship pivot driving results. LMNR had pivoted its business model from purely farming lemons to packing, marketing, and shipping them for other growers domestically and in Mexico and South America. From suffering low prices (and reduced margins) on over-supplied lemons, it makes ~\$2.00/carton to \$2.50/carton in operating profit from the third-party growers it services. (Continued on next page...)

Analyst certification and important disclosures can be found on pages 5 - 8 of this report.

This document represents an abbreviated discussion of the subject issuer and should not be used as the sole basis for an investment decision. Contact your B. Riley Securities representative for complete research concerning the subject issuers, including research briefs and reports.

- (...Continued from prior page) Its One World of Citrus allows it to scale and fill its updated packinghouse capacity from 70% to 100%, growing sales and EBITDA. LMNR's pivot to its asset-light strategy by packing and shipping would help it make \$2.00/carton to \$2.50/carton in spreads at any lemon price. To that effect, LMNR announced that it would scale up its total cartons packed and shipped from its current 5.4M cartons to 15M cartons shipped in five years (a target upped on this call from 12M in cartons in 5 years). This entails adding a 5M carton capacity in Chile in three years. Pivoting away from 100% self-production (cutting production in less productive farming areas) to sourcing more lemons from outside growers in its asset-light volume expansion should lead to higher margins and profits. Higher brokered revs of \$8.8M are expected to continue, given the company's recent efforts to continue sourcing lemons from new suppliers in South America.
- Discount to sum-of-parts value of \$35/sh! An investor in LMNR finds the company in an interesting and opportunistic spot—a large, established grower with a sizable land bank, slowly emerging from an oversupply slump and stagnant prices. Armed with a mandate to make itself asset-light while simultaneously becoming an even bigger supplier of lemons. The increased cash flows are expected from rising demand, firming prices, and an expanded One World of Citrus agency model with real-estate monetization and non-strategic land/water sales that could continue to help Limoneira. LMNR looks to increase its operational cash flows, improve its business model, and monetize sizable land and water assets. At an enterprise value of ~\$300M, LMNR seems to be a bargain, considering the current fair market value of its assets is closer to ~\$600M. It trades at 13x FY25E EV/EBITDA relative to its Ag. comps at ~20x. Our \$24 PT assumes a 20x multiple to FY25E EBITDA.

Valuation

Our \$24 is supported by a sum-of-the-parts value of LMNR at the fair market value of assets that currently is \$35 per share.

Risks

External supply/demand shocks. A big risk to investing in LMNR is an act-of-God event creating a shock on the supply/demand dynamics of edible commodities and farm products. Weather-related external shocks could materially affect the supply chains of lemons and avocados or cause flood impacts on LMNR's internal food production.

Weather. Unpredictable and extreme weather may cause significant fluctuations in commodity prices, impact yield on the company's acreage, or damage yield, which may, in turn, affect profits.

Government control of water rights. Given the environmental and political risks of farming in the U.S., we believe access to these rights over the long term represents a possible risk.

Post-COVID comeback. Domestic restaurant demand, materially affected during COVID, may not recover sufficiently for the company's farmed products, presenting a risk to investors.

Excess international supply may not correct. The domestic lemon market faces supply pressure from certain European and Latin American countries. LMNR's own exports also face risks both geopolitically and from excess supply from growers in the region.



Financial Model

Financial Model	I 1		I			1				_	1	1		1
line and the				2022					20238					
Limoneira	FY	FY	Jan	Anr	Jul	Oct	FY	Jan	Anr	Jul	Oct	FY	FY	FY
B. Riley Securities	2020	2021	01	Apr Ω2	<u>03</u>	<u>04</u>	2022	Ω <u>1</u>	Apr <u>O2</u>	03 03	04E	2023E	2024E	2025E
(\$ Millions, except per-share and common-share data)	159.9	161.4	38.1	45.4	57.6	38.2	179.3	36.5	46.7	51.1	39.2	173.5	209.8	229.9
Agribusiness Other operations	4.6	4.6	1.2	1.4	1.3	1.4	5.3	1.4	1.4	1.4	1.4	5.6	5.4	5.4
Total Revenues	164.6	166.0	39.3	46.8	58.9	39.7	184.6	37.9	48.1	52.5	40.6	179.1	215.3	235.4
Operating expenses:														
Agribusiness	157.8	148.5	41.2	37.6	41.5	40.3	160.7	41.2	38.2	46.8	40.1	166.4	187.0	194.2
Other operations	4.5	4.3	1.1	1.1	1.1	1.1	4.4	1.2	1.0	1.0	1.0	4.3	=	-
Loss (gain) on disposal of assets	0.0	0.1	(0.1)	0.3	0.2	(5.0)	(4.5)	(39.7)	6.7	1.5		(31.5)	-	0
Selling, general & administrative	21.3	19.4	6.6	5.1	5.0	5.1	21.8	9.3	6.0	4.6	4.4	24.3	24.8	30.0
Total operating expense	183.6	172.4	48.8	44.2	47.9	41.5	182.4	12.0	51.9	54.0	45.6	163.6	211.8	224.2
Operating profit / loss (EBIT)	(19.0)	(6.3)	(9.6)	2.6	11.1	(1.9)	2.2	25.9	(3.9)	(1.5)	(5.0)	15.5	3.5	11.2
Interest expense-net	(1.7)	(1.1)	0.2	(0.7)	(0.8)	(1.0)	(2.2)	(1.2)	1.1	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)
Equity in earnings of unconsolidated affiliates	0.3	3.2	0.1	0.3	0.3	0.7	1.3	0.3	0.1	0.2	0.2	0.7	1.2	2.3
Loss on stock in Calavo Growers, Inc.	(6.3)	-												
Other income	0.2	0.1	0.0	0.1	0.0	(1.1)	(1.0)	(2.6)	0.2	(0.2)	(0.2)	(2.8)	(2.8)	(2.8)
Earnings before Income Taxes	(26.5)	(4.2)	(9.3)	2.3	10.6	(3.3)	0.3	22.4	(2.5)	(1.6)	(5.1)	13.1	1.6	10.4
Income Tax Expense	8.5	0.3	2.7	(0.7)	(3.3)	0.6	(0.8)	(6.8)	0.9	0.4	1.3	(4.3)	(0.4)	(2.6)
Net income / loss	(18.0)	(3.9)	(6.6)	1.6	7.3	(2.8)	(0.5)	15.5	(1.6)	(1.2)	(3.8)	8.9	1.2	7.8
Loss (income) attributable to non-controlling interest	1.5	0.5	0.1	(0.0)	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.3	0.3	0.3
Net income/loss attributable to Limoneira Co.	(16.5)	(3.4)	(6.5)	1.6	7.4	(2.7)	(0.2)	15.6	(1.6)	(1.2)	(3.7)	9.2	1.5	8.1
Preferred dividends	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.5)	(0.1)	(0.1)	0.1	0.1	(0.1)	(0.1)	(0.1)
Income/loss applicable to common stock	(17.0)	(3.9)	(6.6)	1.4	7.3	(2.8)	(0.7)	15.4	(1.7)	(1.2)	(3.7)	8.8	1.1	7.7
Earnings Per Share	-	-				4	-		4			-	-	-
EPS - GAAP	(0.96)	(0.23)	(0.38)	0.08	0.40	(0.16)	(0.04)	0.84	(0.10)	(0.07)	(0.20)	0.47	0.06	0.40
Weighted average shares	47.0	47.0				47.5	47.5		40.0		40.5			40.5
Diluted (M) (Incl. Preferred)	17.6	17.6	17.4	17.5	18.3	17.5	17.5	18.4	18.3	18.4	18.5	18.4	19.0	19.5
Common Size:														
						-								
Growth Y-O-Y	4.00/	0.000	2.50/	2.40/	20.40/	40.407	44 20/	4.40/	2.00/	44.20/	2.50/	0.400	20.20/	0.20/
Revenues	-4.0%	0.9%	2.5%	3.1%	20.1%	18.4%	11.2%	-4.1%	2.9%	-11.3%	2.5%	-0.1%	20.2%	9.3%
Adj. EBITDA	-430.5%	-223.6%	-103.2%	-4.3%	80.8%	-28.5%	51.7%	-26.1%	6.5%	-80.4%	55.7%	-104.7%	-2823.1%	50.8%
Net income	177.1%	-79.1%	-68.7%	3.9%	131.1%	40.7%	-93.1%	335.1%	-203.7%	-117.1%	-37.1%	1969.6%	-86.8%	563.5% 584.4%
EPS	-136.7%	-196.0%	-53.3%	-20.5%	101.5%	44.0%	-123.3%	320.0%	-221.9%	-117.7%	-25.8%	1275.3%	-87.7%	364.476
Select Financial Information (\$ Millions unless per-share	e data)													
Adj EBITDA Margin	-3.9%	4.7%	-15.9%	12.4%	24.0%	-9.6%	6.4%	-20.8%	12.8%	5.3%	-4.2%	-0.3%	7.0%	9.7%
Net Margin	-10.0%	-2.1%	-16.6%	3.3%	12.5%	-6.7%	-0.1%	41.2%	-3.4%	-2.2%	-9.1%	5.1%	0.7%	3.4%
Price	\$ 14.70	\$ 14.70	\$ 14.70 \$	14.70 \$	14.70 \$	14.70	\$ 14.70	\$ 14.70 \$	14.70 \$	14.70 \$	14.70	\$ 14.70	\$ 14.70	\$ 14.70
FD Market cap	258.7	258.7	255.8	257.3	269.0	257.3	257.3	270.2	269.6	270.5	272.5	270.7	279.2	286.6
Cash & investments	0.5	0.4	0.8	1.0	1.0	0.9	0.9	12.5	9.8	11.0	12.0	12.0	15.1	0.7
Total LT Debt	122.6	130.4	142.1	135.6	129.0	104.1	104.1	40.9	40.8	40.8	40.8	40.8	40.8	10.8
Enterprise value	380.8	388.6	397.1	391.9	397.0	360.5	360.5	298.6	300.6	300.3	301.4	301.4	305.0	296.8
Degraciation 9 Amortination	10.1	9.8	2.5	2.5	2.5	2.4	9.8	2.4	2.0	2.0	2.0	8.5	8.5	7.4
Depreciation & Amortization Stock based compensation	2.0	2.6	1.0	0.4	0.6	0.7	2.7	1.1	1.0	0.8	1.2	4.0	4.0	4.0
EBITDA	(13.1)	7.2	(6.9)	5.4	13.9	0.2	12.6	26.1	(1.5)	1.2	(2.9)	22.2	10.6	18.3
Adj. EBITDA	(6.3)	7.8	(6.2)	5.8	14.2	(3.8)	11.9	(7.9)	6.2	2.8	(1.7)	(0.6)	15.1	22.8
EBITDA (LTM)	-13.1	7.2	3.4	2.8	8.8	12.6	12.6	-7.9	38.6	25.9	22.9	22.2	10.6	18.3
Adj. EBITDA (LTM)	-6.3	7.8	4.7	4.4	10.7	9.9	11.9	8.3	8.6	-2.7	-0.6	-0.6	15.1	22.8
EV/Adj. EBITDA (LTM) ratio	-60.0x	49.6x	85.0x	88.8x	36.9x	36.4x	30.3x	36.1x	34.8x	NMF	-481.3x	NMF	20.2x	13.0x
Income Taxes	(8.5)	(0.3)	(2.7)	0.7	3.3	(0.6)	0.8	6.8	(0.9)	(0.4)	(1.3)	4.3	0.4	2.6
Capital expenditures	10.6	9.8	2.1	2.0	3.6	2.4	10.1	2.2	3.3	3.5	3.5	12.5	12.5	12.5
Operating Cash Flow	(11.3)	9.6	(8.2)	7.0	12.1	3.9	14.8	(21.2)	2.7	31.0	4.5	17.1	7.6	11.1
Investing Cash Flow	3.8	(10.2)	(0.7)	0.3	(4.9)	24.7	19.4	99.1	(3.7)	(3.1)	(3.5)	88.8	(4.5)	4.5
Financing Cash Flow	7.4	0.5	9.3	(7.0)	(21.1)	(14.8)	(33.5)	(66.3)	(1.7)	(1.6)	-	(69.6)	-	-
Net Cash Flow	(0.1)	(0.1)	0.4	0.3	(13.8)	13.8	0.7	11.6	(2.7)	26.4	1.0	36.3	3.1	15.6
FCF (LTM)	-0.1	-0.1	-1.0	-0.4	-13.5	0.7	0.7	12.0	9.0	49.2	36.3	36.3	3.1	15.6
Shareholders' equity	195.8	188.4	180.6	180.0	185.7	181.1	181.1	200.1	197.8	195.4	191.7	191.7	192.8	200.5
Price/book	1.3x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x	1.4x
Book value per share	\$ 11.12	\$ 10.71	\$ 10.38 \$	10.28 \$	10.15 \$	10.35	\$ 10.35	\$ 10.89 \$	10.79 \$	10.62 \$	10.34	\$ 10.41	\$ 10.15	\$ 10.28
Leverage Ratio (Net Debt/EBITDA)	NMF	18.0x	ł				8.2x	3.4x	3.6x	-10.9x	-46.1x	1.3x	1.7x	0.4x
Dividend	2.04%	2.04%	0.51%	0.51%	0.51%	0.51%	2.04%	0.51%	0.51%	0.51%	0.51%	2.04%	2.04%	2.04%
· · · · · · · · · · · · · · · · · · ·														

Source: Company Financials and B. Riley Securities Research

*Closing price of last trading day immediately prior to the date of this publication unless otherwise indicated.

Important Information

This report has been prepared by B. Riley Securities, Inc. ("B. Riley Securities") and may be distributed by its affiliates and subsidiaries as third-party research pursuant to FINRA Rule 2241. B. Riley Wealth Management, Inc. ("B. Riley Wealth"). is a subsidiary of B. Riley Financial, Inc., which is the parent company to B. Riley Securities and B. Riley Wealth. As such, B. Riley Wealth may distribute B. Riley Securities research pursuant to Rule 2241 and by mutual agreement.

B. Riley Securities, B. Riley Wealth, is a broker-dealer registered with the SEC and are members of FINRA, SIPC, and the NASDAQ stock market.

The principal business address of B. Riley Securities is 11100 Santa Monica Blvd., Suite 800, Los Angeles, CA 90025.

Company-Specific Disclosures

B. Riley Securities, Inc. acts as a market maker or liquidity provider for Limoneira Company's securities.

For up-to-date B. Riley Securities, Inc. company disclosures, please click on the following link or paste the URL in a web browser: https://brileysecurities.bluematrix.com/sellside/Disclosures.action.

General Disclosures

Information about the Research Analyst Responsible for this report:

The primary analyst(s) covering the issuer(s), Raj Sharma, certifies (certify) that the views expressed herein accurately reflect the analyst's personal views as to the subject securities and issuers and further certifies that no part of such analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the analyst in the report. The analyst(s) responsible for this research report has received and is eligible to receive compensation, including bonus compensation, based on B. Riley Securities, Inc.'s overall operating revenues, including revenues generated by its investment banking activities.

Information about B. Riley Securities, Inc.'s Conflicts Management Policy:

B. Riley Securities, Inc.'s Research conflicts management policy is available at: https://brileyfin.com/conflicts-management-policy/.

Information about investment banking:

In the normal course of its business, B. Riley Securities, Inc. or any of their affiliates seek to perform investment banking and other services for various companies and to receive compensation in connection with such services. As such, investors should assume that B. Riley Securities, Inc., or any of their affiliates intend to seek investment banking or other business relationships with the companies covered in their research reports.

Information about our recommendations, holdings and investment decisions:

The information and rating(s) included in this report represent the long-term view as described more fully below. The analyst may have different views regarding short-term trading strategies with respect to the stocks covered by the rating(s), options on such stocks, and/or other securities or financial instruments issued by the company, and such views may be made available to all or some of our clients from time to time. Our brokers also may make recommendations to their clients, and our affiliates may make investment decisions that are contrary to the recommendations contained in this research report. Such recommendations or investment decisions may be based on the particular investment strategies, risk tolerances, and other investment factors of that particular client or affiliate. From time to time, B. Riley Securities, Inc., its affiliated entities, or their respective directors, officers, employees, or members of their immediate families may have a long or short position in the securities or other financial instruments mentioned in this report.



We provide to certain customers on request specialized research products or services that focus on covered stocks from a particular perspective. These products or services include, but are not limited to, compilations, reviews, and analysis that may use different research methodologies or focus on the prospects for individual stocks as compared to other covered stocks or over differing time horizons or under assumed market events or conditions. Readers should be aware that we may issue investment research on the subject companies from a technical perspective and/or include in this report discussions about options on stocks covered in this report and/or other securities or financial instruments issued by the company. These analyses are different from fundamental analysis, and the conclusions reached may differ. Technical research and the discussions concerning options and other securities and financial instruments issued by the company do not represent a rating or coverage of any discussed issuer(s). The disclosures concerning distribution of ratings and price charts refer to fundamental research and do not include reference to technical recommendations or discussions concerning options and other securities and financial instruments issued by the company.

Our analysts' short-term views, recommendations by our brokers, views contained in products and services provided to customers on an individualized basis, and\or strategies, analysis, or decisions made by B. Riley Securities, Inc. or its affiliates and their respective directors, officers, employees, or members of their immediate families may be different from those published by the analyst in this report and could impact the price of the securities mentioned in this report.

Information about our rating system:

- B. Riley Securities, Inc. uses the following three-tiered rating system for securities covered in their research reports:
- **Buy**: We generally expect "Buy" rated stocks to have an above-average risk-adjusted total return over the next 12 months. We recommend that investors buy the securities at the current valuation.
- Neutral: We generally believe "Neutral" rated stocks will have an average risk-adjusted total return over the next 12 months.
- **Sell:** We generally expect "Sell" rated stocks to have a below-average risk-adjusted total return over the next 12 months. We recommend that investors reduce their positions until the valuation or fundamentals become more compelling.
- B. Riley & Co., LLC and FBR Capital Markets & Co. (before the merger of the broker dealers) adopted this rating system on August 9, 2017. A description of the prior ratings system for each Firm can be found at http://www.brileyfin.com/fbr-ratings-system-from-1072002-to-882017/.

Rating	B. Riley Securities, Inc. Research Distribution ¹	B. Riley Securities, Inc. Banking Services in the past 12 months ¹
BUY [Buy]	78.10%	41.77%
HOLD [Neutral]	21.90%	29.35%
SELL [Sell]	0.00%	0.00%

(1) As of midnight on the business day immediately prior to the date of this publication.

General Information about B. Riley Securities, Inc. Research:

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable but is not guaranteed as to accuracy and does not purport to be complete. Opinions are as of the date of the report unless labeled otherwise and are subject to change without notice. Updates may be provided based on developments and events and as otherwise appropriate. Updates may be restricted based on regulatory requirements or other considerations. Consequently, there should be no assumption that updates will be made. B. Riley Securities, Inc. or any of their affiliates disclaim any warranty of any kind, whether express or implied, as to any matter whatsoever relating to this research report and any analysis, discussion, or trade ideas contained herein. This research report is provided on an "as is" basis for use at your own risk, and B. Riley Securities, Inc. or any of their affiliates are not liable for any damages or injury resulting from use of this information. This report should not be construed as advice designed to meet the particular investment needs of any investor or as an offer or solicitation to buy or sell the securities or financial instruments mentioned herein, and any opinions

expressed herein are subject to change. Some or all of the securities and financial instruments discussed in this report may be speculative, high risk, and unsuitable or inappropriate for many investors. B. Riley Securities, Inc. or any of their affiliates make no representation as to the suitability or appropriateness of these securities or financial instruments for individual investors. Investors must make their own determination, either alone or in consultation with their own advisors, as to the suitability or appropriateness of such investments based upon factors including their investment objectives, financial position, liquidity needs, tax status, and level of risk tolerance. These securities and financial instruments may be sold to or purchased from customers or others by B. Riley Securities, Inc. or any of their affiliates acting as principal or agent.

Securities and financial instruments issued by foreign companies and/or issued overseas may involve certain risks, including differences in accounting, reporting, and registration, as well as foreign currency, economic, and political risks.

This report and the securities and financial instruments discussed herein may not be eligible for distribution or sale in all jurisdictions and/or to all types of investors. This report is provided for information purposes only and does not represent an offer or solicitation in any jurisdiction where such offer would be prohibited. Commentary regarding the future direction of financial markets is illustrative and is not intended to predict actual results, which may differ substantially from the opinions expressed herein.

B. Riley Securities, Inc. utilizes a tiered approach to service its clients. The services provided by B. Riley Securities, Inc.'s research analysts to clients vary based upon a variety of factors, including, but not limited to, client preferences and the extent of a client's total relationship with the Firm. B. Riley Securities, Inc. does not provide any of the Firm's clients with access to unpublished research opinions. B. Riley Securities, Inc. provides clients across all tiers equal access to research reports.

Paired Trade Disclaimer

From time to time, B. Riley Securities, Inc. Research Analysts will offer short-term trading ideas, including identifying a paired trade. In a paired trade, an investor buys the securities of one company and sells the securities of another company. The idea to buy the securities of one company and sell the securities of the other company is based on the expected short-term price move or relative value between the two companies mentioned in the paired trade, not between the companies and any other companies. In contrast, the recommendations in a Research Analyst's published report reflect the Research Analyst's views on a company over the long term (i.e., the next 12 months) relative to other companies covered by the Research Analyst. The trade idea in a paired trade is unrelated to the Research Analyst's long-term view of the companies as expressed in the Research Analyst's most recently published research report. A paired trade idea to sell a company that is rated as Neutral or higher, or to buy a security that is rated Neutral or lower, is not inconsistent because the call to sell or buy the company is relative to the other company mentioned in the paired trade over the short term; it is not a long-term view relative to other companies covered by the Research Analyst.

Important information for B. Riley Securities, Inc. Clients with French Addresses and Potential Investors:

Addresses and potential investors based in France expressly acknowledge that they have not been subject to any kind of solicitation by B. Riley Securities, Inc. or its affiliates, as defined under Article L.341-1 and seq. of the French Monetary and Financial code.

The above analyses have not been prepared in the context of a public offering of financial instruments in France within the meaning of Article L.411-1 and seq. of the French Monetary and Financial code and shall not be deemed to be drawn up for the purpose of providing investment services as defined under Article L.321-1 and seq. of the French Monetary and Financial code. In this respect, the above analyses shall not be qualified as personalized investment advice related to financial instruments under French law and shall, therefore, not be deemed to be qualified as investment advice provided by B. Riley Securities, Inc. or its affiliates.

Addresses and potential investors based in France may initiate the first contact with B. Riley Securities, Inc. in order to get additional information on financial analyses and services provided by the latter. By doing so, addresses and potential investors based in France expressly acknowledge that the banking and financial solicitation regime as defined under Article L.341-1 and seq. of the French Monetary and Financial code shall not be applicable.

Information for Clients of B. Riley Securities, Inc.:



This publication has been approved by B. Riley Securities, Inc. which accepts responsibility for its contents and its distribution to our clients. Any B. Riley Securities, Inc. client who receives this research and wishes to effect a transaction in the securities or financial instruments discussed should contact and place orders with a B. Riley Securities, Inc. Sales representative.

Copyright 2023 B. Riley Securities, Inc.

