



May 19, 2021

Indonesia Energy Corp

Nat Resources

INDO NYSE

Market in 2021

Rating

Outperform

Unchanged

Current Price

\$5.88

Target Price

\$8.00

Market Capitalization 43.56M

Shares Outstanding **7.41M**

Float 1.41M

Institutional Holdings 0.00001%

12-Month Low/High \$3.26/\$11.87

Average 90-Day Volume 31673

Fiscal Year End 12/31/2019 **INDO reported 2020 financial results in line with expectations.** Revenues of \$2.0 million (versus \$4.2 million) were in line with our \$1.7 million estimate. EBITDA loss of \$6.6 million was also in line. EPS was (\$0.94) versus our (\$0.83) estimate. Negative cash flow was expected given covid-related delays in drilling and should turn positive over the next two years if the company maintains its drilling schedule.

2020 Results in Line, Company May Need To Access Financial

INDO's cash position has decreased and auditors have added "on going concern" language. INDO's cash position, which was \$16 million after the company's initial IPO, has decreased to \$9.3 million. With 5 wells planned in 2021 at \$1.5 million each and an annual cash drain of \$6 million or so to support licenses, G&A and other costs, it is possible that the company will need to seek external financing later in the year. Auditor on-going concern language addresses the unlikely scenario that all wells are dry and the company is not generating cash to cover expenses. Given past success in the field, we view such a scenario as extremely unlikely and even then believe the company could arrange external financing

We are lowering our fundamental rating to 2.5 from 3.0 to reflect increased financing risk, but maintaining our outperform and \$8.00 price objective. With the first well set to hit total depths in the next few days and four additional wells planned in the six months, the company should start seeing cash flow improve later this year and into 2022. With Brent oil prices touching \$70/bbl this morning, INDO's outlook is improving. We have added 2022 estimates that include revenues of \$18.3 million, EBITDA of \$1.7 million, and EPS of (\$0.97).

Revenue	es (\$ MIL))	
Period	2020A	2021E	2021E2
Q1		0.7	
Q2		0.4	
Q3		0.6	
Q4		2.9	
	2.0	4.7	18.3
EPS (\$)			
Period	20204	2021F	2022F

	2.0	4.7	18.3
EPS (\$))		
Period	2020A	2021E	2022E
Q1		(\$0.17)	
Q2		(\$0.22)	
Q3		\$0.02	
Q4		\$0.10	
	(\$0.94)E	(\$0.93)E	(\$097)

Equity Research

Michael Heim, CFA, Senior Research Analyst (314) 308-9711, mheim@noblefcm.com

Noble Capital Markets, Inc.

Trading: (561) 998-5489 Sales: (561) 998-5491 www.noblecapitalmarkets.com

Refer to the last two pages for Analyst Certification & Disclosures





Company Profile

Indonesia Energy Corporation Ltd. (NYSE:INDO) is an oil and gas exploration and production company operating in Indonesia. Its primary producing asset, Kruh Block in South Sumatra province, provides a constant stream of oil. The Citarum Block near Java is more exploratory although it has a long history of production. INDO also has identified a large land position in western Java called the Rangkas in which the company has entered a joint study with the Indonesian government to assess its energy potential. The company completed an initial public offering on December 19, 2019 and is listed on the New York Stock Exchange under the symbol INDO. Financial statements are reported in U.S. dollars.

Our fundamental assessment rating, separate from our investment rating and valuation, is based on five attributes. These are Corporate Governance/Management, Market Opportunity, Competitive Position, Operating Leverage and Financial Leverage. We assign Indonesia Energy 2.5 checks (down from 3.0), which is an average rating. In our opinion, the company's corporate governance practices are below average with only four of the seven board members serving as outside directors. That said, the credentials of the outside directors are strong with an emphasis on auditing, compliance and banking. INDO does not have an independent Chairman of the Board. We believe the management team is exceptionally strong with a diverse knowledge of energy operations in Indonesia and an understanding of Indonesian regulations. We also view INDO's market opportunity as below average. Energy prices have improved but remain depressed which is hurting the profitability of all energy companies. We view INDO's competitive position as average. On one hand, the company is benefiting from the exodus of major international energy companies. On the other hand, INDO remains a small player competing with larger, better capitalized competitors. We believe the company has an above-average operating leverage to industry fundamentals given its exposure to energy prices and knowledge of investment possibilities. We believe INDO has average financial leverage with \$10 million in cash and little debt. For further explanation of our fundamental analysis, refer to the disclosures at the end of this report.

Valuation Summary

We rate the shares of INDO as Outperform with our Price Objective of \$8.00 per share. We believe the best way to value exploration and production companies is through a discounted cash flow analysis. We have used a cost of equity of 12% to reflect the company's small size, limited float and volatile trading history. We assume a cost of debt of 8% which recognizes the debt backing of its owners but also an assumed higher debt cost associated with future financing. Our modeling assumes long-term oil and gas prices of \$50 per barrel and \$7 per mcf, respectively.

Risks associated with our valuation include but are not limited to: 1) changes in commodity prices including widening spreads between location pricing and index pricing, 2) drilling results, 3) well performance, 4) changes in operating costs, 5) difficulties in obtaining financing and 6) stock market liquidity.



		_		
K		١B	10	~ 10
r	uı	ı	ıv	UΝ

		I VI WIII	DIOCK					
Production - Net	2019A	2020A	Mar	June	Sep	Dec	2021E	2022E
Reserves (year begin)	2134685	2631512	2631439	2631421	2631473	2631595	2631595	2631796
Revisions	-	-	-	-	-	-	-	-
Net Purchases	-	(-)	1.5	97	-	-	-	-
Discoveries	-		-	70,000	140,000	140,000	350,000	420,000
Production (BbI)	(90,000)	(72,524)	(18,304)	(18,304)	(18,304)	(93,600)	(148,512)	(548,863)
Production (Bbl)/day	(247)	(217)	(206)	(371)	(703)	(1,017)	(574)	(1,504)
Drilling Results								
Wells Drilled (Net)		-		1	2	2	5	6
Cost Per Well		(1,500)	(1,500.0)	(1,500.0)	(1,500.0)	(1,500.0)	(1,500)	(1,500.0)
Capital Expenditures		-		(1,500)	(3,000)	(3,000)	(7,500)	(9,000)
Reserves Per Well	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
First Year Prod Per Day	175	175	175	175	175	175	175	175
Decline Curve	21%	21%	21%	21%	21%	21%	21%	21%
Prices								
Oil Prices								
Brent Prices	56.98	40.00	65.00	60.00	60.00	55.00	60.00	60.00
Discount (7.5%)	-2.85	-3.00	-4.88	-4.50	-4.50	-4.13	-4.50	-4.50
Adjusted Price	54.13	37.00	60.13	55.50	55.50	50.88	55.50	55.50
Hedged %	0%	0%	0%	0%	0%	0%	0%	0%
Hedge Price	0	0	0	0	0	0	0	0
Realized Price	54.13	37.00	60.13	55.50	55.50	50.88	55.50	55.50
Operations								
Production Cost (LOE)	(21.50)	(21.50)	(21.25)	(21.25)	(21.25)	(21.25)	(21.25)	(21.00)
DDA Cost	_	(10.00)	(10.00)	(10.00)	(10.00)	(10.00)	(10.00)	(10.00)
Impairment Costs	-	-	-	-	-	-	-	-
Total Costs Per BOE	(21.50)	(31.50)	(31.25)	(31.25)	(31.25)	(31.25)	(31.25)	(31.00)
Cost Recovery								
Cost Recorded	_	1,578	389	1,889	3,389	4,989	10,656	20,526
Cost Recovery Limit	12	2,173	880	813	813	3,810	6,315	24,369
Costs Recovered	-	1,578	389	813	813	3,810	6,315	24,369
Costs Unrecovered (recovered)	_	-	-	1,076	2,576	1,179	4,832	(3,843)
Costs Unrecovered Balance	-	-		1,076	3,653	4,832	4,832	989
Receipts Subject to Sharing		-		.,		,	-	-
Income Statement								
Receipts (\$ thousand)								
Crude Oil	-	2,716	1,101	1,016	1,016	4,762	7,894	30,462
Less Oil Royalties		(1,061)	(440)	(406)	(406)	(1,905)	(3,158)	(12,185)
Recorded Sales		1,981	660	361	610	2,857	4,737	18,277
Operating Costs								
Production Cost (LOE)	-	(2,018)	(389)	(670)	(389)	(1,989)	(3,156)	(11,526)
G&A Costs	12	(6,534)	(1,700)	(1,813)	(1,000)	(1,000)	(5,513)	(5,013)
DDA Cost	-	(699)	(183)	(105)	(183)	(936)	(1,485)	(5,489)
Total	-	(9,250)	(2,272)	(2,588)	(1,572)	(3,925)	(10,357)	(22,028)
Operating Income	-	(7,270)	(1,612)	(2,227)	(962)	(1,068)	(5,620)	(3,751)



Citarum Block

Reserve Data (Mmcf)		2019A	2020A	Mar	June	Sep	Dec	2021E	2022E
Reserves (year begin)			12	10	_	-	1 1 2 <u>2</u> 5	944	2
Revisions		-	-	-	-	-	10 . 00	0.70	-
Net Purchases		_	-	-	-	-		-	-
Discoveries		-	-	-	-	-	-	-	160,000
Production (mcf)		-	-	-	-	_	S-3	-	_
Production (mcf)/day		-	-	-	-	-	-	-	-7
Drilling Data									
Wells Drilled (Net)			-		9-	-	5. 5 8		2
Cost Per Well			(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)
Capital Expenditures			-		-	_	-	-	(12,000)
Reserves Per Well		20,000	20,000	20,000	20,000	20,000	20,000	80,000	80,000
First Year Prod Per Day		4	4	4	4	4	4	4	4
Decline Curve		20%	20%	20%	20%	20%	20%	20%	20%
Prices									
Gas Prices	ACC	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Discount (7.5%)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adjusted Price		7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Hedged %		0%	0%	0%	0%	0%	0%	0%	0%
Hedge Price		0	0	0	0	0	0	0	0
Realized Price		7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Realized Frice		7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Operations		(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.40)
Production Cost (LOE)		(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.10)
DDA Cost		-	-	-	-	-)	0.00	-
Impairment Costs		-	-			-		-	
Total Costs Per BOE		(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.00)	(2.10)
Income Statement									
Receipts (\$ thousand)									
Gas		-	-	-	-	-	-	-	-
Royalty Percent		48%	48%	48%	48%	48%	48%	48%	48%
Less Oil Royalties		-	5	15	- 7	-	, , , ,	0.70	5
Total Sales		-	ō	-	7		1273	0.7	1
Operating Costs									
Production Cost (LOE)		_	-	-		-	-	-	_
G&A Costs		_	-	2	12	_	(500)	(500)	(500)
DDA Cost		_	12	_	- 2	(2)	_	_	_
Impairment Costs		2	12	-	12	320	10 <u>2</u> 5	920	1
Total		-	-	_		_	(500)	(500)	(500)
. 0.01			100			200	(500)	(555)	(555)
Operating Income		-	-	0	0	0	-500	(500)	(500)
Taxes	-0.3	-	-	-	-	-	125	125	-
After tax Income								-	(500)



\$ thousand								
Income Statement	2019A	2020A	Mar	June	Sep	Dec	2021E	2022E
Income Statement								
Revenues	4,183	1,981	660	361	610	2,857	4,737	18,277
Operating Costs	(5,787)			(2,588)	(1,572)	(4,425)	(10,857)	(22,528)
Exchange Gain	(54)	132	-	-	-	-	-	-
Other Income (Expenses)	(21)	186	361	547	1,095	2,189	186	186
Interest Expense	- 1	-	-	-	-	_	(1,200)	(1,200)
Pretax Operating Inc.	(1,679)	(6,952)	(1,250)	(1,679)	132	621	(7,135)	(5,265)
Income Taxes Expense (Gain)	<u>-</u>	-	0	-	-	125	125	-
Summary								
Discontinue/Smooth	1	- I	-	-	-	-	30 - 4	-
Non-controlling interests	-	- N-	-	-	-	-	31 - 3	-
Earnings for Common	(1,678)	(6,952)	(1,250)	(1,679)	132	746	(7,010)	(5,265)
Avg. Common Shares	6,049	7,395	7,500	7,500	7,500	7,500	7,500	7,500
Diluted Common Shares	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Basic Common Shares	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Earnings Per Share								
March Quarter								
June Quarter								
September Quarter								
December Quarter	\$ (0.28)	\$ (0.94)	\$ (0.17)	\$ (0.22)	\$ 0.02	\$ 0.10	\$ (0.93)	\$ (0.70)
Reported EPS	\$ (0.28)	\$ (0.94)	\$ (0.17)	\$ (0.22)	\$ 0.02	\$ 0.10	\$ (0.93)	\$ (0.70)
Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GAÁP EPS	\$ (0.28)	\$ (0.94)	\$ (0.17)	\$ (0.22)	\$ 0.02	\$ 0.10	\$ (0.93)	\$ (0.70)
Statistics								
EBITDA	-	(6,571)	(1,429)	(2,122)	(779)	(132)	(4,135)	1,738
EBIDTA Per Share	\$ -	\$ (0.89)						
Adjusted Fund Flow	(495)	(5,186)	(1,067)	(1,574)	315	1,682	(5,524)	1,684
AFF Per Share	\$ (0.08)							
EBITDAX	(1,043)		(1,929)	(4,122)	(4,279)	(3,632)	(12, 135)	(19,762)
EBIDTAX Per Share	\$ (0.17)							



\$ thousand		- 1			10			
Cash Flow Statement	2019A	2020A	Mar	June	Sep	Dec	2021E	2022E
Cash From Operations								
Net Income	(1,679)	(5,854)	(1,250)	(1,679)	132	746	(7,010)	(7,265)
Depreciation/Depletion	1,184	656	183	105	183	936	1,485	6,949
Impairment Costs	-	- ·	-	-	-	-	-	-
Decommissioning Costs	-							
Other	-	12	-	(-)	-	-	7-7	-
Total Cash from Oper.	(495)	(5,186)	(1,067)	(1,574)	315	1,682	(5,524)	(316)
Changes in Working Cap	52		-	-	_	-	100	-
Net Cash From Oper.	(443)	(5,186)	(1,067)	(1,574)	315	1,682	(5,524)	(316)
Maintenance Capital	-	_	-	-	-	-		-
Unlevered Free Cash Flow	-	(6,571)	(1,429)	(2,122)	(779)	(7)	(4,010)	1,738
PV of Free Cash Flow							(4,010)	1,580
Cash From Investing	(1,043)	(357)	(500)	(2,000)	(3,500)	(3,500)	(8,000)	(21,500)
Cash From Financing								
Issue of Common Stock	13,124	921	2	_	2"	-	-	-
Dividends on Common	_	% <u>-</u> 0	2	-	-	2	- 10-10	1
Long-term Debt Issues	-	95 - 0-9	-	-	-	-	10,000	20,000
Retirement of LT Debt	1-	21 . 4	-	-	-	-		-
Change in ST Debt	(0)	· ·	-	-	-	-	n=0	-
Other	-	(1,125)	-	-	-	-		-
Net Cash From Finance	13,124	(1,125)	-	-	-	- "	10,000	20,000
Effect of exchange rate								
Surplus/Deficit	11,639	(6,669)	(1,567)	(3,574)	(3,185)	(1,818)	(3,524)	(1,816)
Beginning Cash Levels	4,433	16,072	9,403	7,836	4,262	1,077	9,403	5,879
Ending Cash Levels	16,072	9,403	7,836	4,262	1,077	(741)	5,879	4,063



\$ thousand								
Balance Sheet	2019A	2020A	Mar	June	Sep	Dec	2021E	2022E
Current Assets								
Cash	14,305	9,403	7,836	10,487	1,077	(741)	5,879	4,063
Accounts Receivable	351	173	173	173	173	173	173	173
Prepaid Expenses	-	, - /)	-	-	-	-		-
Other Current Assets	494	719	719	719	719	719	719	719
Total Current Assets	15,150	11,766	8,728	11,379	1,969	151	6,771	4,955
Long-term Assets								
Properties	175	153	153	153	153	153	153	153
Exploration & Production	2,383	1,961	2,278	2,329	5,646	8,210	8,476	23,027
Deferred Tax Asset	1,241	1,211	1,211	1,211	1,211	1,211	1,211	1,211
Other	2,204	2,755	2,755	2,755	2,755	2,755	2,755	2,755
Total Long-term Assets	6,003	6,080	6,397	6,448	9,765	12,329	12,595	27,146
Total Assets	21,153	17,846	15,125	17,827	11,734	12,480	19,366	32,101
Current Liabilities								
Accounts Payable	917	192	192	192	192	192	192	192
Bank Loan	1,106	980	980	980	980	980	980	980
Derivative Contracts	_	12	-	-	-	_	44	_
Decommissioning obligations	-		-	-	-	-	-	-
Other	716	365	365	365	365	365	365	365
Total Current Liabilities	2,739	1,537	1,537	1,537	1,537	1,537	1,537	1,537
Long-term Liabilities								
Long-term Debt	2,000	2,000	2,000	2,000	2,000	2,000	12,000	32,000
Decommissioning obligations	222	_		-	_		-	-
Noncurrent derivative liability	-	0.20	ূ	22	21	2	84 <u>0</u> 0	
Other	-	-	-		_	_	-	_
Total Long-term Liabilities	2,222	2,000	2,000	2,000	2,000	2,000	12,000	32,000
Equity								
Preferred Stock	-	9 - 2 1	_	(-)	2	_		-
Total Common Equity	16,191	11,998	10,748	14,289	14,421	15,168	4,989	(2,276)
Total Liabilities & Equity	21,153	15,536	14,286	17,827	17,959	18,705	18,526	31,262

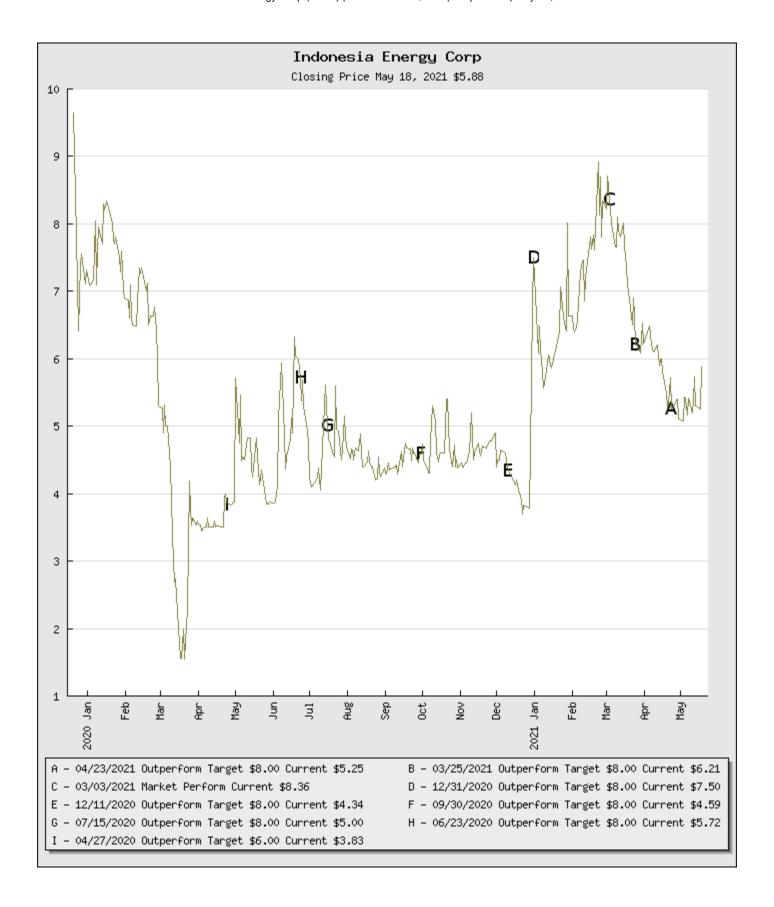




Valuation Analysis

WAAC	10.0%
LT Growth	0
ST PV CF	54,862
PV Term Val	28,553
Cash less Debt	6,423
Equity Value	\$ 61,284.51
Per Share	\$ 8.17









GENERAL DISCLAIMERS

All statements or opinions contained herein that include the words "we", "us", or "our" are solely the responsibility of Noble Capital Markets, Inc. ("Noble") and do not necessarily reflect statements or opinions expressed by any person or party affiliated with the company mentioned in this report. Any opinions expressed herein are subject to change without notice. All information provided herein is based on public and non-public information believed to be accurate and reliable, but is not necessarily complete and cannot be guaranteed. No judgment is hereby expressed or should be implied as to the suitability of any security described herein for any specific investor or any specific investment portfolio. The decision to undertake any investment regarding the security mentioned herein should be made by each reader of this publication based on its own appraisal of the implications and risks of such decision.

This publication is intended for information purposes only and shall not constitute an offer to buy/sell or the solicitation of an offer to buy/sell any security mentioned in this report, nor shall there be any sale of the security herein in any state or domicile in which said offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or domicile. This publication and all information, comments, statements or opinions contained or expressed herein are applicable only as of the date of this publication and subject to change without prior notice. Past performance is not indicative of future results.

Noble accepts no liability for loss arising from the use of the material in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to Noble. This report is not to be relied upon as a substitute for the exercising of independent judgement. Noble may have published, and may in the future publish, other research reports that are inconsistent with, and reach different conclusions from, the information provided in this report. Noble is under no obligation to bring to the attention of any recipient of this report, any past or future reports. Investors should only consider this report as single factor in making an investment decision.

IMPORTANT DISCLOSURES

This publication is confidential for the information of the addressee only and may not be reproduced in whole or in part, copies circulated, or discussed to another party, without the written consent of Noble Capital Markets, Inc. ("Noble"). Noble seeks to update its research as appropriate, but may be unable to do so based upon various regulatory constraints. Research reports are not published at regular intervals; publication times and dates are based upon the analyst's judgement. Noble professionals including traders, salespeople and investment bankers may provide written or oral market commentary, or discuss trading strategies to Noble clients and the Noble proprietary trading desk that reflect opinions that are contrary to the opinions expressed in this research report.

The majority of companies that Noble follows are emerging growth companies. Securities in these companies involve a higher degree of risk and more volatility than the securities of more established companies. The securities discussed in Noble research reports may not be suitable for some investors and as such, investors must take extra care and make their own determination of the appropriateness of an investment based upon risk tolerance, investment objectives and financial status

Company Specific Disclosures

The following disclosures relate to relationships between Noble and the company (the "Company") covered by the Noble Research Division and referred to in this research report.

The Company in this report is a participant in the Company Sponsored Research Program ("CSRP"); Noble receives compensation from the Company for such participation. No part of the CSRP compensation was, is, or will be directly or indirectly related to any specific recommendations or views expressed by the analyst in this research report.

The Company has attended Noble investor conference(s) in the last 12 months. Noble has arranged non-deal roadshow(s) with investors in the last 12 months.

Noble intends to seek compensation for investment banking services and non-investment banking services (securities and non-securities related) within the next 3 months.

Noble is not a market maker in the Company.





FUNDAMENTAL ASSESSMENT

The fundamental assessment rating system is designed to provide insights on the company's fundamentals both on a macro level, which incorporates a company's market opportunity and competitive position, and on a micro/company specific level. The micro/company specific attributes include operating & financial leverage, and corporate governance/management. The number of check marks that a company receives is designed to provide a quick reference and easy determination of the company's fundamentals based upon the following five attributes of the company (weighting reflects the importance of each attribute in the overall scoring of company's fundamental analysis):

Attribute	Weighting
Corporate Governance/Management	20%
Market Opportunity Analysis	20%
Competitive Position	20%
Operating Leverage	20%
Financial Leverage	20%

For each attribute, the analysts score the company from a low of zero to a high of ten based upon the analysis described below. The final rating and resulting check marks is a result of dividing the overall score (out of 100%) by ten.

Rating	Score	Checks
Superior	9.1 to 10	Five Checks
Superior	8.1 to 9	Four & A Half Checks
Above Average	7.1 to 8	Four Checks
Above Average	6.1 to 7	Three & A Half Checks
Average	5.1 to 6	Three Checks
Average	4 to 5	Two & A Half Checks
Below Average	3 to 3.9	Two Checks
Below Average	2 to 2.9	One & A Half Checks
Low Quality	0 to 1.9	One Check

While these are the attributes currently used for the analyst's fundamental analysis, the attributes and weighting may be reviewed, updated with additional attributes, and/or changed in the future based on discussions with the analysts and recommendations from the Director of Research.

Following is the description of each attribute in the fundamental analysis.

Corporate Governance/Management

We believe that a review of corporate governance and assessment of the senior management are important tools to determine investment merit. Good corporate governance aligns management with the interests of stakeholders. As such, analysts are to rank the company on the basis of good corporate governance principles that may include rules and procedures, board composition and staggered term limits, rights and responsibilities, corporate objectives, monitoring of actions and policies, and accountability. In addition, analysts will assess issues with controlling shareholders and whether decisions have been made in the past that were in the interests of all shareholders. In addition, management will be assessed based on industry experience, expertise, and/or track record.

High ranking example: Board and management that is aligned with the interests of shareholders with incentives based on stock price appreciation and with an experienced management team known for exceptional shareholder returns.

Low ranking example: Concentrated ownership without independent directors that do not necessarily align with all shareholders' interests.

The Market Opportunity Analysis

In this review, the analyst assesses the company's macro environment as a measure of understanding the industry. Factors considered include the size and growth potential of the industry under various economic conditions, the emerging demands in the market, technological benefits/disruptions, competition, geographical opportunities, and customer demands/needs, and an assessment of supply and distribution channels. In addition, the analyst will review legal and regulatory trends, as well as potential shifts in consumer or social behavior and natural environment changes.

High rank example: A company in an industry that is growing revenues well above GDP rates (which are on average 2% plus) and/or may have unmet or underserved needs in a rapidly growing market opportunity.

Low rank example: A mature industry that is in secular decline and likely to grow below GDP rates.





Competitive Position

The evaluation of the company's competitive position is another macro environment attribute designed to measure the relevance, market share, position and value proposition, and sustainable differentiations of the company and its products/services within its industry. Ease of entry into the industry and the ability of other well-funded players to potentially enter the market would be determined. As such, the assessment would consider the company's strengths and advantages of its products/services against weaknesses and limitations. This may include the company's current brand awareness, pricing and cost structure, current market strategies and geographic penetration that may affect demand for its products/services. In addition, the company's competitors would be evaluated.

High rank example: An analyst would consider the company's product to be superior to its competitors and that should allow the company to gain market share.

Low rank example: A company with a "me-too" product that does not have any significant technology advantages in an industry that has low barriers to entry.

Operating Leverage

Simplistically, operating leverage is determined by the operating income relative to changes in revenue. The analyst will calculate the impact on sensitivity on gross margins and variable costs to determine operating leverage. The analyst will take into account the ability of the company to cut fixed and variable costs in a challenged revenue environment and technological changes that may impact operating expenses. In addition, the analyst is to assess corporate strategies that include capital investment, which may be required for sustainable revenue growth, marketing expenses, and the company's ability to attract and retain talent and/or employees. The analyst should focus on the revenue opportunity and determine the price elasticity of demand for the company's products or services. In other words, the analyst is to rank the company based on improved operating margins going forward on an absolute and relative basis.

High rank example: A company that has improving margins for the foreseeable future, with significant price elasticity.

Low rank example: A company that is in a challenged revenue environment with a fixed cost structure and limited ability to cut costs, indicating an outlook for declining margins.

Financial Leverage

A strict definition of financial leverage is total debt divided by total shareholder's equity. Financial leverage analysis is to determine the company's ability to improve shareholder value by means of utilizing its balance sheet to grow organically or to acquire assets. Analysts may look at the company's debt to cash flow leverage ratio, interest coverage ratios, or debt to equity ratios. In addition, the interest rate environment and the outlook for interest rates are a factor in determining the company's ability to manage financial leverage. Finally, the analyst is expected to determine the ability to service the debt given the industry and/or company profile, such as cyclicality, barriers to entry, history of bankruptcy, consistency in revenue and profit growth, or predictability in sales and profits and large cash reserves. The analyst is expected to take into account capital intensity of the company and the anticipated of capital allocation decisions.

High rank example: A company with predictable and growing revenue and cash flow with modest debt levels. This may indicate that the company could improve shareholder value through growth investments, including acquisitions, using debt financing.

Low rank example: A company in a cyclical industry in a late stage economic cycle that has above average debt leverage and is in an industry that has a history of financial challenges, including bankruptcies.

ANALYST CREDENTIALS, PROFESSIONAL DESIGNATIONS, AND EXPERIENCE

Senior Equity Analyst focusing on energy and utility stocks. 24 years of experience as an analyst. Chartered Financial Analyst©. MBA from Washington University in St. Louis and BA in Economics from Carleton College in Minnesota.

Named WSJ 'Best on the Street' Analyst four times. Named Forbes/StarMine's "Best Brokerage Analyst" three times. FINRA licenses 7, 63, 86, 87.

CONTINUING COVERAGE

Unless otherwise noted through the dropping of coverage or change in analyst, the analyst who wrote this research report will provide continuing coverage on this company through the publishing of research available through Noble Capital Market's distribution lists, website, third party distribution partners, and through Noble's affiliated website, channelchek.com.





WARNING

This report is intended to provide general securities advice, and does not purport to make any recommendation that any securities transaction is appropriate for any recipient particular investment objectives, financial situation or particular needs. Prior to making any investment decision, recipients should assess, or seek advice from their advisors, on whether any relevant part of this report is appropriate to their individual circumstances. If a recipient was referred to by an investment advisor, that advisor may receive a benefit in respect of transactions effected on the recipients behalf, details of which will be available on request in regard to a transaction that involves a personalized securities recommendation. Additional risks associated with the security mentioned in this report that might impede achievement of the target can be found in its initial report issued by . This report may not be reproduced, distributed or published for any purpose unless authorized by .

RESEARCH ANALYST CERTIFICATION

Independence Of View

All views expressed in this report accurately reflect my personal views about the subject securities or issuers.

Receipt of Compensation

No part of my compensation was, is, or will be directly or indirectly related to any specific recommendations or views expressed in the public appearance and/or research report.

Ownership and Material Conflicts of Interest

Neither I nor anybody in my household has a financial interest in the securities of the subject company or any other company mentioned in this report.

NOBLE RATINGS DEFINITIONS	% OF SECURITIES COVERED	% IB CLIENTS
Outperform: potential return is >15% above the current price	79%	32%
Market Perform: potential return is -15% to 15% of the current price	6%	2%
Underperform: potential return is >15% below the current price	0%	0%

NOTE: On August 20, 2018, Noble Capital Markets, Inc. changed the terminology of its ratings (as shown above) from "Buy" to "Outperform", from "Hold" to "Market Perform" and from "Sell" to "Underperform." The percentage relationships, as compared to current price (definitions), have remained the same.

Additional information is available upon request. Any recipient of this report that wishes further information regarding the subject company or the disclosure information mentioned herein, should contact Noble Capital Markets, Inc. by mail or phone.

Noble Capital Markets, Inc. 225 NE Mizner Blvd. Suite 150 Boca Raton, FL 33432 561-994-1191

Noble Capital Markets, Inc. is a FINRA (Financial Industry Regulatory Authority) registered broker/dealer. Noble Capital Markets, Inc. is an MSRB (Municipal Securities Rulemaking Board) registered broker/dealer. Member - SIPC (Securities Investor Protection Corporation)

Report ID: 23694