

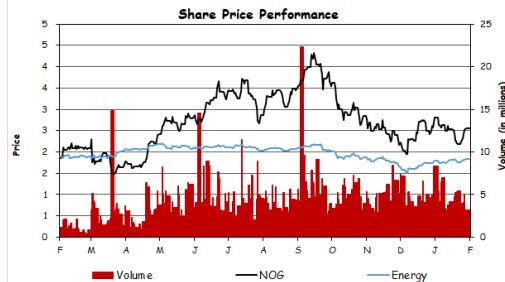
Northern Oil and Gas, Inc.

Symbol: NOG
 Analyst: Michael Bove
 Buy below: \$4.07
 Sell above: \$5.54
 Probability of Price Increase: 100%
 Last Price: \$2.55
 Intrinsic Value: \$4.43
 Target Dividends: \$0.00
 Target Price: \$5.09

Investment Thesis

INCREDIBLE RECOVERY FROM OIL PRICE COLLAPSE AND LONG-TERM GROWTH OPPORTUNITIES

I am initiating coverage of Northern Oil and Gas with a BUY at \$2.55 and a \$5.09 price target. I view NOG as a unique player in the Oil and Gas industry for their survival during the collapse of Oil prices in 2015 and their return to profitability despite sustaining incredible losses during that downturn. NOG is completing a turn-around plan and effectively deleveraging to return value to shareholders. Amongst their competitors, NOG has one of the highest free cash flow yields (17%) with one of the lowest net debt to EBITDA ratios (1.1x) of their competitors in the Williston Basin. A rapidly improving income statement and balance sheet, coupled with strength in the oil markets will provide value to shareholders in the long-term.



Description

Northern Oil and Gas, Inc., an independent energy company, engages in the acquisition, exploration, exploitation, development, and production of crude oil and natural gas properties in the United States.

Sector: Energy
 Industry: Oil, Gas and Consumable Fuels
 Last Guidance: December 11, 2018
 Next earnings date: February 21, 2019

People

Elliott, Brandon, Chief Executive Officer
 Romlo, Erik, Executive VP, General Counsel & Secretary
 Reger, Michael, Founder, Chairman Emeritus & President
 O'Grady, Nicholas, Chief Financial Officer
 Allen, Chad, Chief Accounting Officer
 Dirham, Adam, Executive Vice President of Land

Top Competitors

Whiting Petroleum Corporation: Oasis Petroleum Inc.
 California Resources Corporation: QEP Resources, Inc.
 Continental Resources, Inc.: Denbury Resources Inc.
 Magnolia Oil & Gas Corporation: Halcón Resources Corporation
 Lonestar Resources US Inc.: --

Market Statistics

Market Capitalization (mil)	\$951.71
Last Price per share	\$2.55
52 week high	\$4.49
52-week low	\$1.47
Volatility	78.92%
Daily volume (mil)	1.25
Short interest	5.79%
Days to cover short interest	4.55
Beta	2.38

For the long:

1. Strengthening Company Financials:
 The 2015 Oil market collapse was devastating for all oil producers. WTI Crude fell from over \$100 per barrel to around \$26 per barrel in the span of roughly one year. Revenues plummeted for oil producers and many of those companies fell into bankruptcy. NOG, with their unique structure of only owning partial interest in a variety of wells, was able to survive and has since improved their fundamentals. In the last 12 months, revenues have grown 49%, net income margins have grown from 4.1% to 27.5%, and EPS have grown a whopping 893%.

2. Experience and Improving Efficiency:
 As a company with experience in the Williston Basin, they are becoming more efficient in extracting oil. As noted in their conference call, costs have been trending lower and continue to do so. Furthermore, their wells are improving in the amount of oil extracted. These higher recoveries and stable costs are generating strong returns.

3. Reactivation of Share Repurchase Program:
 Due to the strengthening companies financials, NOG has decided to reactivate their share repurchasing in the 4th quarter. They have already agreed to repurchase 7.36 million shares in the 4th quarter.

For the short:

1. Stock Price Heavily Tied to Oil:
 The performance of NOG's shares is heavily tied to the price of WTI oil. A protracted move down in the price of oil will harm the immediate share price of NOG. I would not say that this is a case for shorting the stock, but rather it could produce some instability in the share price in the near term.

2. NOG is a Non-Operator of Wells:
 NOG's business works by owning a minority interest in many oil wells. While this reduces cost, it also reduces control over the wells. The majority owner, in some circumstances, could decide to operate a well when oil is below the well's break even price. This harms NOG's flexibility and could open them up to the risk of other company's operating decisions.

Key Catalysts for price change

- Strengthening Financials and Oil Market
- Improving Efficiency of Assets
- Reactivation of Share Repurchase Program

Valuation

My \$5.09 price target is derived from Discounted Unlevered Free Cash Flow estimates

Ownership

		Change in Ownership ("Input"/month)
Shares outstanding (mil)	371.76	
Diluted shares outstanding (mil)	157.29	
Options and Warrants (Shares equivalent)	0.07	
% shares held by institutions	43%	-8%
% shares held by investments Managers	22%	-5%
% shares held by hedge funds	14.48%	2%
% shares held by VC/PE firms	15.537%	1%
% shares held by insiders	9.07%	-181.46%
Poison Pill Type	NONE	

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Financials			
Profitability			
	NOG (LTM)	NOG Historical	Peers' Median (LTM)
Return on Capital	10.8%	4.71%	1.83%
Adjusted EBITDA Margin	51.2%	28.43%	40.92%
Return on Equity	-2419.3%	13.6%	14.4%
Adjusted Net margin	-26.0%	21.8%	14.3%
Invested Funds			
	NOG (LTM)	NOG Historical	Peers' Median (LTM)
Cash/Capital	26.3%	1.0%	0.6%
NWC/Capital	-2.3%	-7.9%	-4.0%
Operating Assets/Capital	76.0%	103.1%	102.3%
Goodwill/Capital	0.0%	0.0%	0.0%
Capital Structure			
	NOG (LTM)	NOG Historical	Peers' Median (LTM)
Total Debt/Market Cap.	0.62	2.92	0.93
Reported Cost of Borrowing	10.6%		6.7%
Cash Interest/Total Debt	11.2%		7.8%
CGFS Credit Rating	F		D
Credit Model Rating	b-		b+ to bb-
Probability of Default	5.18%		4.17%
Cost of Capital			
	CGFS Credit Rating	Credit Model Rating	Probability of Default
Implied Cost of Borrowing (NOG)	14.3%	8.0%	9.7%
Implied Cost of Borrowing (Peers)	9.7%	7.0%	12.2%
Cost of New Debt Estimate		13.0%	
Market Risk Premium Estimate		8.0%	
Cost of Equity Estimate		21.0%	
WACC Estimate		16.9%	

Quarterly Earning Surprises (Actual Vs. Median Estimates)	
Revenue	
9/30/2017	-3.60%
12/31/2017	1.29%
3/31/2018	-0.52%
6/30/2018	2.73%
9/30/2018	0.60%
Mean (Standard Error)	0.1% (0.92%)
EBITDA	
9/30/2017	-34.75%
12/31/2017	-12.64%
3/31/2018	-31.29%
6/30/2018	-23.17%
9/30/2018	-6.42%
Mean (Standard Error)	0.1% (5.55%)

Valuation						
DCF Valuation						
	Revenues	EBITDA Margin	UFCF	WACC	ROIC	Price Per Share
Base Year (Actual)	\$375.56	91%	-\$11.51	14.43%	10.83%	\$5.48
year 1	\$915.73	68%	\$213.00	16.89%	35.41%	\$6.10
year 2	\$1,105.48	75%	\$347.19	17.27%	37.07%	\$6.78
year 3	\$1,241.96	64%	\$260.54	17.95%	27.82%	\$7.48
year 4	\$1,385.88	63%	\$227.38	18.09%	39.77%	\$8.29
year 5	\$1,535.98	62%	\$184.32	18.51%	31.91%	\$9.24
year 6	\$1,690.71	62%	\$190.68	18.84%	26.52%	\$10.41
year 7	\$1,848.21	61%	\$65.99	19.11%	22.56%	\$11.92
year 8	\$2,006.40	60%	-\$9.91	19.32%	19.53%	\$13.90
year 9	\$2,162.93	60%	-\$96.90	19.50%	17.08%	\$16.52
year 10	\$2,315.28	59%	-\$194.47	19.36%	14.72%	\$19.90
year 11	\$2,460.84	58%	-\$281.81	18.99%	12.34%	\$24.12
year 12	\$2,596.91	58%	-\$356.75	18.60%	10.26%	\$29.29
year 13	\$2,720.83	57%	-\$427.74	18.17%	8.95%	\$35.58
year 14	\$2,830.07	56%	-\$492.15	17.72%	7.13%	\$43.14
year 15	\$2,922.25	55%	-\$566.64	17.23%	5.77%	\$52.20
Continuing Period	\$2,995.31	55%	\$1,719.56	16.93%		
Relative Valuation						
Multiple	EV/Rev (FW)	EV/EBITDA (FW)	P/BV (TTM)	P/E (FW)	Recovery Rate	100%
Median (Peers)	2.9x	5.0x	0.9x	22.1x	Capital	\$2,089.66
Base	Revenue (NTM)	EBITDA (NTM)	Book Value (LTM)	Net Income (NTM)	Intangibles	\$0.00
NOG	\$991.11	\$702.69	\$70.02	\$183.22	Claims	\$819.12
Implied EV	\$2,849.94	\$3,479.72				
Total Net Claims	\$641.02	\$641.02				
Implied EQ	\$2,208.92	\$2,838.70	\$62.15	\$4,048.85		\$1,270.54
Valuation Summary						
Model	Intrinsic Value		Target Price		Weight	
DCF Valuation	\$5.48		\$6.10		60.00%	
EV/Rev (FW)	\$14.04		\$16.41		0.00%	
EV/EBITDA (FW)	\$18.04		\$21.09		0.00%	
P/BV (TTM)	\$0.39		\$0.46		20.00%	
P/E (FW)	\$25.73		\$30.08		0.00%	
Asset Based Valuation	\$8.07		\$9.44		20.00%	
Price per Share	\$4.98		\$5.64		100%	

