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Siena Market Line
2nd week of April 2016

Eagle Materials, Inc.

NYSE:EXP

Analyst: Patrick Donovan
Sector: Materials

SELL

Price Target: $57

Key Statistics as of 4/9/2016

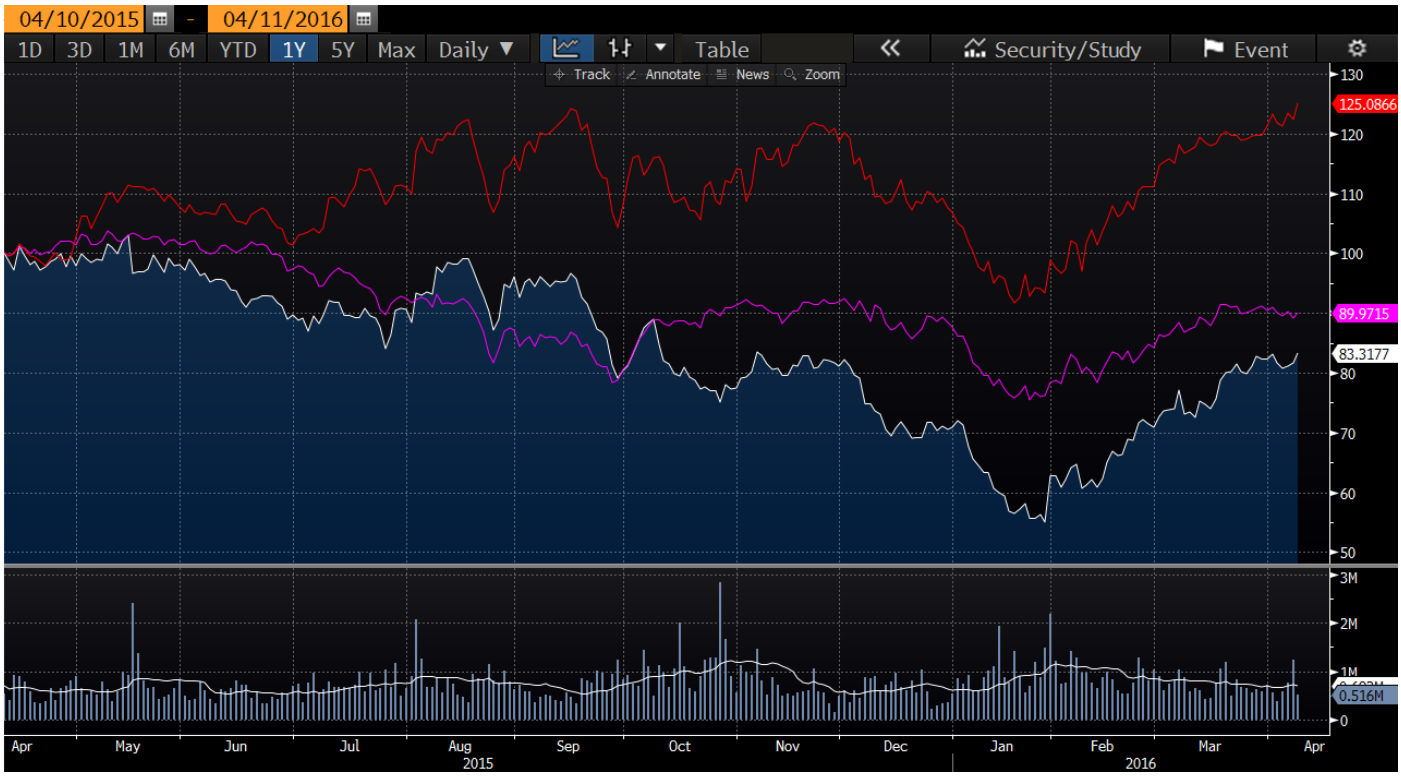
Market Price:	$70.97
Industry:	Construction Materials
Market Cap:	$3,499.5M
52-Week Range:	$45.03-88.81
Beta:	1.61

Thesis Points:

- Oil and Gas ventures have left company exposed to unnecessary risks.
- Cement prices have reached a peak, lowering the expectations for future revenues in the largest segment.
- Anti-Trust lawsuit in the gypsum industry poses a significant risk for future growth.

Company Description:

Eagle Materials Inc. produces and distributes construction materials such as gypsum board, cement, paperboard, and concrete. In the last two years the company has begun to explore the oil and gas proppants industry, and purchased a small firm performing operations utilizing hydraulic fracturing technology. Headquartered in Dallas, Texas and founded in 1963, the firm has over 40 locations in the United States where it performs all of its operations and sales. Eagle handles every aspect of their production process including the mining and processing of materials such as gypsum, crushed stone, sand, gravel and more.

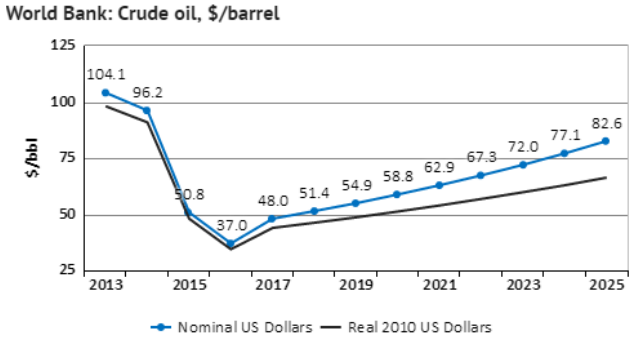


Thesis

In the last two years Eagle has capitalized on their great success in the cement market by using accumulated earnings to purchase a relatively small hydraulic fracturing operator. Through this purchase the company has left itself exposed to a serious of unnecessary risks that appear to have been caused by unwise management. With the price of oil dropping last year it was arguably the worst time in recent history to have made this type of acquisition. Eagle now has a massive investment in an industry that has unfavorable outlooks. Their most profitable and largest segment is cement sales, which has seen a relatively stable margin until the last 3 years. Cement has risen in price on the consumer market in the last year, however this is a side effect of the increase in costs of production. It is unlikely that Eagle will be able to maintain the margins they have experienced in the last 3 quarters. Continuing in line with the decision to acquire an oil and gas company during an inadvisable period of time, the management team at Eagle has also made questionable decisions with whom they do business. Eagle has been drawn into a class action lawsuit due to their business partnerships with three companies who perform operations related to the gypsum industry. The anti-trust lawsuit has been ongoing since January and will be for some time. Although the outcome of this lawsuit may not be felt in this fiscal year, the potential for negative impact is significant.

Industry Outlook

As changes occur throughout the country in relation to the housing and construction industries in 2016, Eagle will be caught in the turmoil that unfolds. According to multiple construction focused firms there has been a significant lack of skilled laborers available to meet the demand. During the economic downturn in '08-'09 and more recently during the last quarter of 2015, the construction industry let off many workers and has neglected to look to hire young people to fill the gaps. Not only is this because of financial constraints, but also younger more tech savvy workers are much less interested in the construction industry than in previous years. Another important note on the industry is that a significant portion of construction materials have inputs tied to petrochemicals. This indicates a risk for the company as oil prices may rise over the coming year to a point that makes Eagle's traditional construction business less profitable and could crush the oil and gas proppants segment only a year and half into existence. According to the World Banks estimations, crude oil will jump in value by over $10 by 2017, an unfavorable forecast for any inputs related to petrochemicals.



Source: World Bank Commodity Forecast Price Data, January 2016

World Bank: Crude oil, $/barrel

	2014	2015	2016	2017	2018	2019	2020	2025
Nominal US Dollars	96.2	50.8	37.0	48.0	51.4	54.9	58.8	82.6
Real 2010 US Dollars	90.9	48.0	34.4	43.9	46.2	48.6	51.2	66.3

People

The management team at Eagle have all been working at the firm for at least ten years. It has been company practice to promote from within to fill vacant upper management positions. In April of this year a new CEO was elected from his previous position as the executive vice president of gypsum. Dave Powers has a challenging job to undertake, he is assuming responsibility just after the previous CEO approved the acquisition of CRS Proppants and put Eagle in a dangerous position. According to Eagle's records, the upper management team of 7 men has a combined industry experience of over 100 years, and the majority of members have been focused on construction for a great portion of their career. While this could be seen as a positive, in the current market when macro events are having such an impact on the price of inputs for construction, a team of executives who have a broader experience may be more beneficial.

Porters Five Forces

Eagle is currently positioned in a highly saturated market with relatively stable growth in most of its operating segments. Porter's five forces are a great means of standardizing the position of a firm in relation

to the industry, the scores are standardized on a scale from 0-100 with 0 being the least impactful. For Eagle, the bargaining power of suppliers lies directly in the middle of the scale with a score of 50. This indicates that suppliers do not have a significant impact on the course of business for Eagle and that the firm can likely switch between suppliers if necessary to attain more attractive prices. The bargaining power of customers is 36, indicating that the firm does not have to worry about customers demanding lower prices or switching to competitors because the industry is highly competitive, most firms are offering a very similar set of services or products at very comparable prices. The intensity of existing rivalry is 42, meaning competition amongst firms is not necessarily overwhelming, but it does play a role in effecting how management makes their decisions. The threat of substitutes for Eagle has the highest score at 92. This is because the industry is saturated with so many firms performing the exact same set of operations, customers can look to many other places to satisfy their needs. In this type of industry customer loyalty is essential, and providing some sort of key value driver for that customer is critical. Finally the threat of new competition scores 67 on Porter's scale, meaning other firms in the same industry are fairly likely to compete for customers with Eagle. Thanks to high barriers to entry this score is kept down slightly, however existing firms can work to draw customers from Eagle in the future.

Conclusion

To summarize, Eagle has had great success in an industry that is highly saturated and typically does not see above average levels of growth. Unfortunately, thanks to aggressive or foolish management tactics, the firm has overextended itself and entered into an entirely new business that has very little in common to the firm's experience. According to many reputable sources including the world bank, the price of crude oil is estimated to continue to rise for years to come as demand begins to increase once again. Eagle has made an unfortunate decision to enter into this market at a very inopportune time. The company has been feeling the impact of a drop in oil prices and demand for their products since the purchase of CRS, and could be forced to sell or significantly modify the business in order to avoid serious value destruction. In 2015 the firm was forced to endure an impairment on contracts with customers for CRS products of 28.5 million dollars. Oil and gas in the United States is an industry that has been growing at an incredible rate, so much so that it has had a profound effect on the supply and demand for crude throughout the world. Eagle has chosen to enter into this hostile, over saturated industry at a time when the company should have been looking to use earnings as a means for increasing shareholder value. The rise in cost of construction inputs such as cement will also make future growth challenging for the firm. Lastly, the anti-trust lawsuit that has been taken out against many firms in the gypsum business could spell disaster for Eagle pending on the outcome of that case. It is unlikely that the market has accurately valued this and the other factors effecting Eagle in the coming year. Because of this my one year target price for Eagle is $56.79 and I am recommending a SELL.

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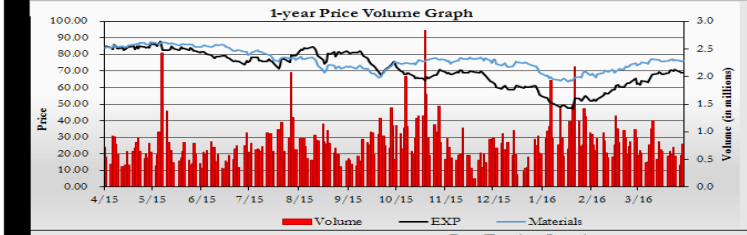
2nd week of April 2016

Eagle Materials Inc. (EXP) — CENTER FOR GLOBAL FINANCIAL STUDIES — NEUTRAL

Analysis by Patrick Donovan
4/9/2016

Current Price:	$70.97	Intrinsic Value	$52.64
Divident Yield:	0.6%	Target Price	$56.79

Target 1 year Return: -19.38%
Probability of Price Increase: 3.67%



Description

Eagle Materials Inc. produces and sells construction products and building materials used in residential, industrial, commercial, and infrastructure construction; and products used in oil and natural gas extraction in the United States.

General Information

Sector	Materials
Industry	Construction Materials
Last Guidance	November 3, 2015
Next earnings date	May 14, 2016
Estimated Country Risk Premium	5.00%
Effective Tax rate	32%
Effective Operating Tax rate	33%

Market Data

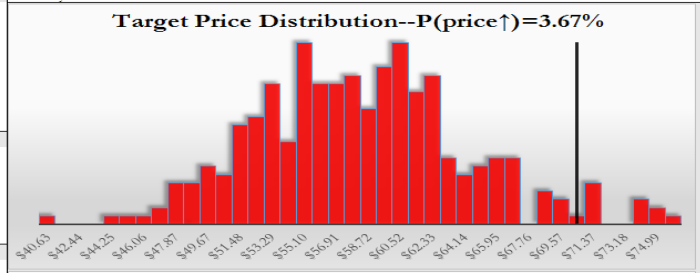
Market Capitalization	$3,499.52
Daily volume (mil)	0.52
Shares outstanding (mil)	49.31
Diluted shares outstanding (mil)	50.26
% shares held by institutions	55%
% shares held by investments Managers	77%
% shares held by hedge funds	15%
% shares held by insiders	1.37%
Short interest	4.43%
Days to cover short interest	2.51
52 week high	$88.81
52-week low	$45.03
Levered Beta	0.76
Volatility	35.71%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
12/31/2014	0.76%	-8.26%
3/31/2015	-8.58%	-21.41%
6/30/2015	-9.21%	-14.84%
9/30/2015	-2.18%	-24.42%
12/31/2015	-4.18%	-13.99%
Mean	-4.68%	-16.58%
Standard error	1.9%	2.9%

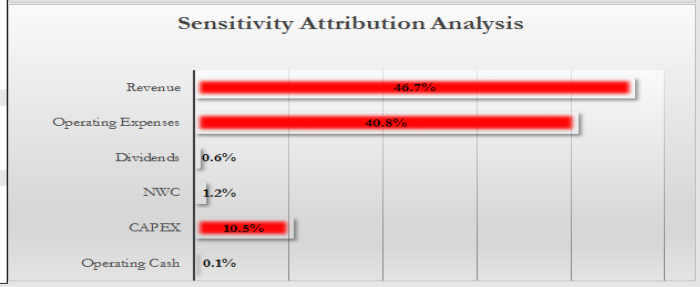
Peers

Summit Materials, Inc.
U.S. Concrete, Inc.
Martin Marietta Materials, Inc.
Vulcan Materials Company
USG Corporation
Headwaters Incorporated

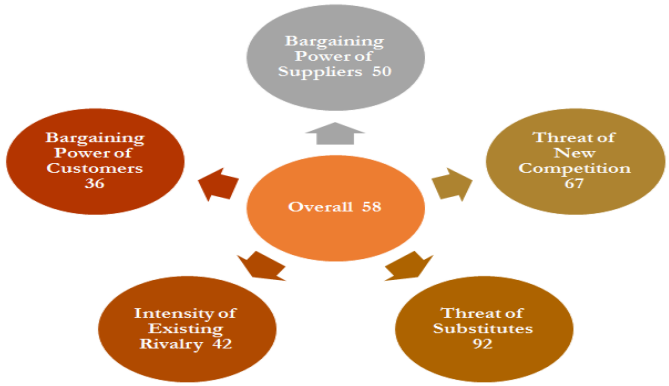


Management	Position	Total compensations growth	Total return to shareholders
Powers, David	Chief Executive Officer, Pre	28.06% per annum over 6y	3.54% per annum over 6y
Kesler, D.	Chief Financial Officer and	18.26% per annum over 6y	3.54% per annum over 6y
Haack, Michael	Chief Operating Officer and	N/M	-27.2% per annum over 1y
Essl, Gerald	Executive Vice President of	25.23% per annum over 6y	3.54% per annum over 6y
Devlin, William	Chief Accounting Officer, Se	N/M	N/M
Graass, James	Executive Vice President, Ge	-100% per annum over 4y	18.88% per annum over 4y

Profitability	EXP (LTM)	EXP (5 years historical average)	Industry (LTM)
ROIC	10.3%	8.35%	6.19%
NOPAT Margin	15%	10.97%	11.2%
Revenue/Invested Capital	0.69	0.76	0.55
ROE	11.1%	8.64%	6.28%
Adjusted net margin	14%	9.24%	9.3%
Revenue/Adjusted Book Value	0.79	0.94	0.67
Invested Funds	**EXP (LTM)**	**EXP (5 years historical average)**	**Industry (LTM)**
Total Cash/Total Capital	0.9%	0.6%	4%
Estimated Operating Cash/Total Capital	0.9%	0.6%	N/A
Non-cash working Capital/Total Capital	14.0%	13.7%	9%
Invested Capital/Total Capital	97.1%	96.8%	96%
Capital Structure	**EXP (LTM)**	**EXP (5 years historical average)**	**Industry (LTM)**
Total Debt/Common Equity (LTM)	0.18	0.14	0.14
Cost of Existing Debt	2.36%	4.37%	8.23%
Estimated Cost of new Borrowing	2.41%	2.64%	8.23%
CGFS Risk Rating	2.36%	AA	C
Unlevered Beta (LTM)	2.31%	1.44	1.23
WACC	2.36%	9.78%	8.98%



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue growth	NOPAT margin	ROIC/WACC
Base Year	8.0%	14.9%	1.66
12/31/2016	6.3%	17.7%	1.97
12/31/2017	12.5%	19.6%	2.16
12/31/2018	11.6%	19.0%	2.04
12/31/2019	10.6%	18.5%	1.92
12/31/2020	9.7%	17.9%	1.81
12/31/2021	8.7%	17.2%	1.70
12/31/2022	7.8%	16.6%	1.60
12/31/2023	6.8%	16.0%	1.49
12/31/2024	5.9%	15.3%	1.39
12/31/2025	4.9%	14.6%	1.30
Continuing Period	4.0%	13.9%	1.21

Period	Invested Capital	Net Claims	Price per share
Base Year	$854.67	$548.45	$53.19
12/31/2016	$835.31	$525.16	$56.66
12/31/2017	$1,270.51	$501.42	$60.30
12/31/2018	$1,286.83	$463.62	$64.29
12/31/2019	$1,608.24	$405.52	$68.66
12/31/2020	$1,675.45	$324.90	$73.42
12/31/2021	$1,831.38	$219.21	$78.60
12/31/2022	$2,029.36	$107.02	$84.08
12/31/2023	$2,234.36	-$38.06	$89.88
12/31/2024	$2,438.57	-$208.43	$96.08
12/31/2025	$2,637.90	-$403.67	$102.70
Continuing Period			