As with all commodity related businesses, Rex American Resources (REX), has not fared the best in the past few years. Tightening crack spreads and a low commoditized environment have hindered the topline, contracted the bottom line and have cut the stock price by more than half. If you do shallow analysis on REX, it looks like a clear avoid from the weak environment. However, the company is well managed, has a strong balance sheet and has a significant amount of cash that can be put to work. There is an asymmetric risk/reward with skews towards the upside in REX's common security.

Summary

In short, REX is an ethanol production company. Currently, REX has interests in six ethanol production facilities and shipped 631mm gallons of ethanol in the last fiscal year. Originally, REX was a specialty retailer, however, they dramatically switched business models in 2006 when they started producing ethanol. What really intrigues us is that REX is one of the smallest public comp pure plays in the ethanol industry.

REX American Resources Corporation

Source: [Rex Stores]

Market Cap	322.74 M	**Enterprise Value**	181.59 M
Shares Outstanding	6.68 M	**Cash**	136.63 M
TTM Revenues	456.91 M	**Debt**	0.00
TTM EBITDA	70.53 M	**Insider Ownership**	18.39%
TTM EV/EBITDA	2.57	**TTM EV/Revenues**	0.40

The Ethanol Industry

By furthering the use of ethanol, farmers are presented with an opportunity to produce a cash crop by collecting their agricultural wastes- Richard Lugar

It's extraordinary how inventive one can be with ethanol right now- Daniel Yergin

Ethanol has a great potential to help the US kick our oil habit, but that's 20 or 30 years away- David Friedman

The ethanol industry is a highly controversial industry and topic of debate amongst some of the world's brightest minds. To prove the controversy, below is a negative quote on the ethanol industry…

Ethanol doesn't burn cleaner than gasoline, nor is it cheaper- Jeff Goodell

What exactly is so controversial about the ethanol industry and what drives production/demand? Since controversy is fun and 'edgy', let's break the ice right away and dig a little into the controversy.

There are significant amount of defenders for ethanol production and use, which we wholly agree with. First, ethanol helps cut the reliance of oil from foreign countries. Furthermore, ethanol is considered a clean fuel, which can help cut back on carbon emissions. Finally, the ethanol industry has created jobs, lowers the price of gasoline, and helps the US get closer to the energy sustainability is it reaching for.

Before you go jumping the gun about how all of the former positive statements are false, continue to read. What makes the ethanol industry so controversial is that many professionals do not agree that the ethanol industry helps the US at all and in fact hinders it. For an example, many anti-ethanol users say ethanol raises consumer's fuel costs, is bad for the environment due to the production implications, and has other negative externalities such as higher food prices (for corn related products) and uses too much water (think California drought issues).

We could go on and on debating the controversy of the ethanol industry, however, this is an investment report. If you feel the need to learn more about the controversy of the ethanol industry, we suggest readers read these great articles here, here and here. To end this, we believe that investors should be aware of the inherent controversies surrounding the ethanol industry if they make an investment decision in REX.

Let's now move onto the fun stuff (supply, demand and production).

One of the biggest headwinds for REX as a whole has been negative commodity prices. In short, ethanol operators/producers are very dependent upon commodity prices, especially corn, distiller grains, non-food grade corn oil and natural gas. As of recently, the biggest headwind that REX is facing is lower ethanol prices and contracting crack spreads.

In the past few years the average selling price of ethanol has been decreasing. Check out the price decline in the first three and nine months of 2015.

	Three Months Ended October 31, 2015	Three Months Ended October 31, 2014	Nine Months Ended October 31, 2015	Nine Months Ended October 31, 2014
Average selling price per gallon of ethanol	$ 1.44	$ 1.89	$ 1.45	$ 2.06
Gallons of ethanol sold (in millions)	57.3	58.4	171.0	168.6
Average selling price per ton of dried distillers grains	$ 146.64	$ 145.87	$ 152.69	$ 181.54
Tons of dried distillers grains sold	153,560	158,409	421,461	440,386
Average selling price per pound of non-food grade corn oil	$ 0.26	$ 0.31	$ 0.27	$ 0.33
Pounds of non-food grade corn oil sold (in millions)	15.4	13.9	43.8	39.7
Average selling price per ton of modified distillers grains	$ 56.40	$ 41.78	$ 70.99	$ 68.19
Tons of modified distillers grains sold	19,645	14,439	57,891	42,297
Average cost per bushel of grain	$ 3.62	$ 3.64	$ 3.64	$ 4.14
Average cost of natural gas (per mmbtu)	$ 3.21	$ 4.69	$ 3.82	$ 6.41

Source:3Q16 Report

Now look how the average price of ethanol started to show signs of weakness from 2014-2015…

	Years Ended January 31, 2015	Years Ended January 31, 2014
Average selling price per gallon of ethanol	$ 2.00	$ 2.20
Gallons of ethanol sold (in millions)	226.4	227.2
Average selling price per ton of dried distillers grains	$ 166.00	$ 233.27
Tons of dried distillers grains sold	580,304	538,337
Average selling price per pound of non-food grade corn oil	$ 0.32	$ 0.38
Pounds of non-food grade corn oil sold (in thousands)	53,930	49,904
Average selling price per ton of modified distillers grains	$ 63.47	$ 114.91
Tons of modified distillers grains sold	75,842	165,329
Average cost per bushel of grain	$ 3.99	$ 6.27
Average cost of natural gas (per mmbtu)	$ 6.10	$ 4.54

Source: 2015 Annual Report

However, you can notice that average cost per bushel of grain has also been falling since 2013, which has helped stabilize margins somewhat…

	Years Ended January 31, 2014	Years Ended January 31, 2013
Average selling price per gallon of ethanol	$ 2.20	$ 2.23
Average selling price per ton of dried distillers grains	$ 233.27	$ 235.56
Average selling price per ton of modified distillers grains	$ 114.91	$ 117.89
Average cost per bushel of grain	$ 6.27	$ 7.14
Average cost of natural gas (per mmbtu)	$ 4.54	$ 3.75

Source: [2014 Annual Report]

There are a few reasons for the collapsing price of ethanol. First and foremost, low gasoline prices have helped fuel the downside in ethanol. Another yet not so obvious reason for the price decline in the price of ethanol is due to price competition from other octane 'enhancers' such as toluene, xylene and benzene. Furthermore, supply side theories that suggest the price declined because more players saw the money ethanol producers were making so they jumped in the game, thus reducing prices. We are sure there are other theories on why the price of ethanol has fallen in the most recent years, but the three former ones we mentioned make a lot of sense. Further predictive reasoning can be found here and here, for the interested investor.

Another concern with the ethanol market is the price lag between corn and ethanol prices. Moreover, the market price of ethanol almost always tends to lag the price movements in corn. This can cause serious concern to ethanol producers. For an example, corn prices could jump up from disease, weather relatable issues or other supply disruptions. Due to the existing lag between corn and ethanol prices, high corn prices coupled with low ethanol prices can lead to a serious margin compression.

Stepping away from the headwinds in the ethanol industry, we can see that there are tailwinds in relations to the Federal government. From 1999-2014, the ethanol industry has grown from a 1.5bn gallon per year industry to a 14.3bn gallon per year industry. Significant growth to say the least. In fact, as of June of 2015, the ethanol industry is now producing in 29 states with 198 operating plants and 213 overall plants.

All industry data in the former paragraph is sourced from the recent annual report.

What continues to drive demand for the industry is governmental plans/hopes of sustainability. One of the major governmental interventions that has helped and continues to help the industry is the Energy Independence and Security Act of 2007. Tailwinds from this act are derived by; new and higher levels of renewable fuel mandates. What also could be considered a potential major tailwind/topline influencer is that the industry wants to expand more rapidly into the E-85 market and raise the Federal cap on ethanol blend above the 10% mark. In fact, the EPA recently just approved use of 15% ethanol blend for cars, SUVs and light trucks for 2001 vehicles and beyond.

What really shows that government intervention is a tailwind is the fact that after the announcement of the raise to the level of ethanol produced to 18.11bn gallons in 2016, major ethanol producers stock prices rose. Thus any positive announcement from the EPA in regards to boasting US renewable fuel targets will have a positive correlation to ethanol producing companies such as REX. Due to the ever shifting ways of the US economy from fossil fuels to cleaner and greener energy, we are expecting further government intervention which will positively affect REX.

Relative Valuation and Potential Acquisition

REX presents itself as an attractive security based on the relative and absolute undervaluation.

	EV/EBITDA	EV/Revenue
Green Plains (GPRE)	4.28	0.26
Pacific Ethanol (PEIX)	11.54	0.26
The Andersons (ANDE)	9.64	0.28
Rex American Resources (REX)	2.54	0.41

REX is also very attractive to its peers based on a pure profitability standpoint.

	TTM	2015	2014	2013
GPRE				
Gross Margins	7.04	-	11.58	5.69
Operating Margins	4.00	-	8.85	3.55
Net Income Margins	1.73	-	4.93	1.43
PEIX		-		
Gross Margins	1.52	-	9.80	3.62
Operating Margins	-0.45	-	8.25	2.08
Net Income Margin	-0.63	-	1.81	-0.23
ANDE				
Gross Margins	8.95	-	8.75	6.52
Operating Margins	1.02	-	1.72	1.55
Net Income Margins	1.37	-	2.40	1.60
REX				
Gross Margins	15.68	24.80	9.63	2.06
Operating Margins	11.37	21.41	6.95	0.15
Net Income Margins	10.56	15.26	5.27	-0.35

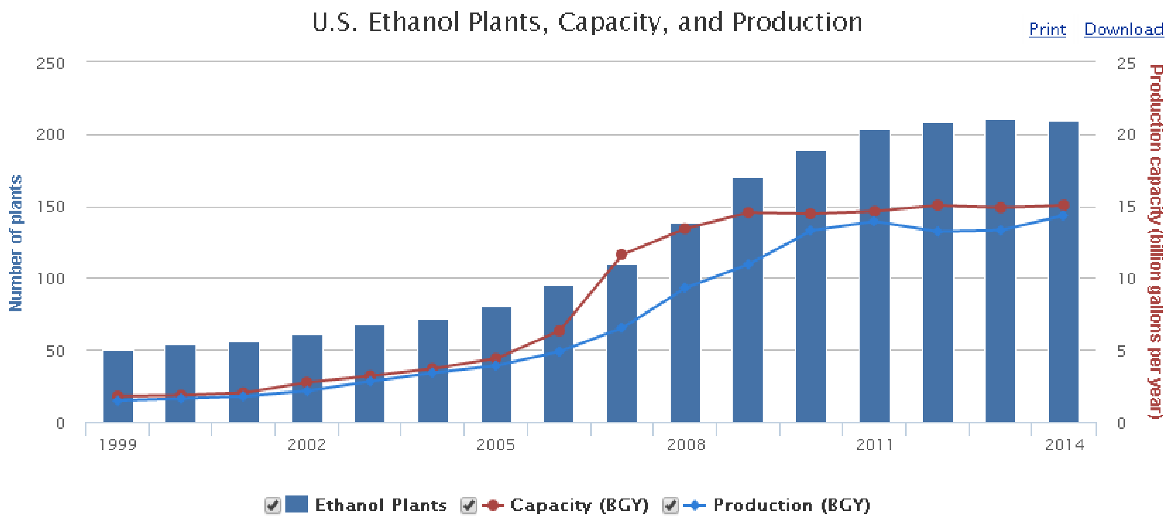
We believe that REX would make for an accretive and attractive acquisition target to one of its peers. The main reason why we believe that REX would make for an attractive acquisition target is due to; the absolute undervaluation, the very attractive balance sheet (zero debt with 42% of the market cap in cash), low insider and institutional ownership, attractive returns (high margins), and zero takeover defenses.

There are also some key signs/signals that suggest consolidation will continue to happen going forward. One looming sign of continual consolidation is found when looking at other successful industries and how they essentially “grew up”. Take the auto or even oil industry as an example.

Both of these industries had hundreds of companies when they first started. Fast forward in time and now there are just a few dominating companies.

Interestingly, the auto, oil and ethanol industries each support very volatile business models. Furthermore, the biggest consolidation in volatile industries mainly happens during downturns. Based upon reduced ethanol prices and squeezing crack and profit margins, it can easily be seen that the ethanol industry is in a downturn of its volatile business cycle. Does this mean there will be an uptick in M&A activity in the ethanol industry? If we were betting men, we would throw money down on it.

A further sign of consolidation in the overall ethanol industry is suggested by slowing growth (maturing industry) and costs/regulations it takes to fully build out a fully functioning ethanol plant.

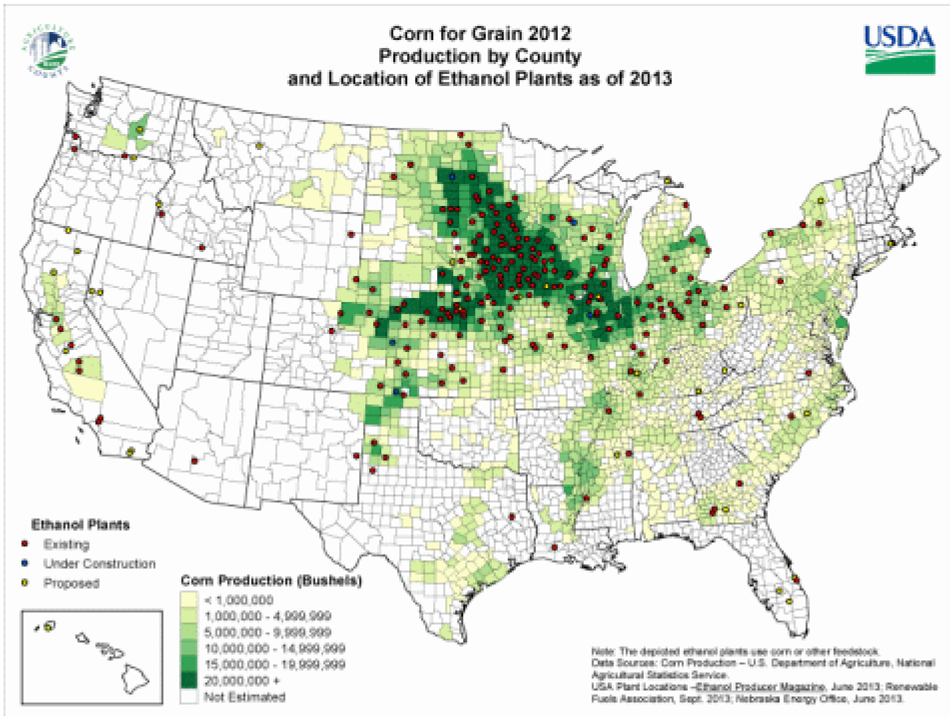


Source: AFDC Energy

Per the picture above, you can see that the number of ethanol plants in operation has started to slow down since 2011 and actually from 2013-2014, the number of plants in operation fell by one. This is an indicative sign that the industry as a whole is maturing. A maturing industry with hundreds of independently operated companies competing with each other, is a clear sign that continual consolidation of the industry as a whole may happen.

Another further sign of future consolidation is from the plentiful regulations that surround the ethanol industry. Yes, current regulations are a tailwind that has been helping companies like REX. However, there are so many regulations in this industry (from production to consumption), that actually hinders new plant expansion builds. When the EPA, DOT, TTB, FDA, OSHA and FTC all get involved in an industry, the initial investment into the industry is complex and costly. In our opinion, the opportunity cost saved from buying an existing production facility, beats jumping over all of the regulatory hoops in producing your own production facility.

So why do we think that REX is a potential accretive and attractive acquisition target besides from the obvious (attractive balance sheet, low ownership, no takeover defenses, and strong margins)? Well first, REX is in middle of the biggest corn yielding areas and ethanol plant locations…



Source: [USDA NASS]

Being in the middle of the ethanol industry activity, instead of being in say Texas or Georgia, is a huge leg up for REX. The reasoning is simple. First, REX has access to the biggest corn producing areas in the United States. This allows the company to cut down on unnecessary transportation costs and can be used as leverage if an M&A opportunity ever comes knocking. Secondly, with REX in the midst of the industry, a potential buyer (who is also in the middle of the booming industry), can use their locations together to form synergies.

Finally, on June 1st, 2015 Patriot completed a merger with CHS Inc, in which CHS acquired 100% of Patriot. Before the merger of Patriot, REX owned a 27% interest in the company. After the merger, REX was paid $45.5mm with a net gain of $10.4mm. As a whole, this was a small buyout. However, it helps support our thesis that REX may make for a great acquisition target down the road.

Going Forward

If REX is not acquired in the near-term, we still believe they represent a great standalone play, with significant opportunities for investors to take advantage of. One of the biggest bullish forward cases for REX is that the company is amongst the best in the industry and has a very strong management team driving the company forward.

In terms of best in the industry, find us an ethanol producing company that has higher earning metrics than REX. From the digging that we did, well, we could not find a company that has comparable margins to REX. When you have great locations in the Corn Belt, have some of the most efficient production plants and a great rail access for transportation, well, it's hard for competition to keep up.

With regards to a great management team, just read the follow excerpts from the recent conference calls…

> Second quarter, we hope – by the second quarter of next year, we also hope to get our capacity up to about roughly 135 million gallons from 150 million gallons from about 115 million gallons we are running this year that would be 15% growth in gallons. We continue to buy back our shares on dips. We are not a company – I have watched a lot of companies buy back their stock at the highs and then when it gets to the lows they have no money left to buy back their shares, we are the exact opposite. When the stock is going up, we leave it alone. When it's coming down, we are there to support the shares, stabilize the stock and whoever is saying - make a market for the people who don't want to sell their shares. So, decrease the number of shares and increase the percentages of the people that currently own the shares.
>
> During the third quarter, we purchased 280,434 shares at an average price of $49.66. For the year, we purchased over 1 million shares and that's about 13% of our float. We still have 452,809 authorized at the end of the quarter. And again, when there is dips, that's when we are there we do not buy at the year-to-date high and we look at our share buyback as something to support the stock during dips, not something to just reduce the count arbitrarily.

Source: 3Q15 Call

It is rare finding a management team that utilizes dips in the stock price to take advantage of share repurchases. When you find a company that has bought back 13% of the float YOD, at dips and the 52/week low, that's a huge sign of competent management. Management can't decide where the stock price goes. However, they can use the dips to their advantage for buybacks (which they have done).

We're always looking at other alternative energy things to look at but with oil prices where they are, it's hard to find anything that's great today. We have our heavy oil business that we've been trying to get permitted in California and hope to have that permitted, and we have a made little progress on that; hope to have that permitted. But again, that won't be a money maker. The best thing that we can see, if the industry stays tough, there might be that opportunity to buy an existing plant at a price that we consider reasonable. If that happens, we have the money to do it; we have the liquidity to do it. Other than that expanding our plants and buying in shares really gives you the same effect. We took basically money that we received on selling the minority interest in Patriot and reinvested it in REX. And certainly as we're making money, we expect it to increase our earnings per share forever basic one.

Source: 2Q15 Call

The company also has plans going forward for their rather large cash position that will help grow the topline. Currently the company is investing and jumping through the regulatory hoops so they can produce heavy oil. However, management is taking their time with this due to the low oil price environment. If REX gets through the regulatory hoops, producing heavy oil will help grow the topline in the years to come (3-5 years down the road).

Secondly, management recognizes that if the industry continues to stay in a downturn, they may be able to pick up a production plant at a fire sale price. The way management uses the term 'reasonable' suggests that they are not going to jump into any acquisition unless its accretive and attractive for the shareholders (presents a larger ROI). With the strong cash position and FCF generating ability, they are in a perfect position to snatch up another production plant down the road.

Finally, in the Q3 call, management plans on increasing the topline by expanding production at their existing facilities that they own. In 2016, management's goal is a 15% increase in production capacity. This would put the capacity to 135mm gallons. If everything goes as planned, by 2Q16, production capacity will be up 15%. Ceteris paribus, this will drive topline growth.

We have provided our hypothetical base and bull cases below for REX.

	Base	**Bull**
EBITDA	70.00	98.00
Multiple	3.00	3.25
EV	210	318.5
+Cash	136.63	136.63

-Debt	0.00	0.00
Total Equity	346.63	455.13
Shares Outstanding	6.86	6.86
Estimated Equity Per Share	50.53	66.35

In millions

For the base case we are going to assume that EBITDA runs at ~$70mm, with a multiple expansion to 3.00x. A multiple of expansion to 3.00x is still under all comps used in the above sections. As for the bull case, an EBITDA run-rate of $98mm with a multiple expansion to 3.25x is also conservative. We believe that it is conservative due to the fact that in 2014 and 2013, EBITDA was $172mm and $81mm, respectively. With the recent announcement of the capacity expansion, hitting $98mm EBITDA should not be out of the question. Consequently, the multiple expansion to 3.25x is still lower than all of the comps used above.

Downside is limited due to the margin of safety established by the current absolute and relative undervaluation, high cash position with zero debt, management's knack to aggressively buy back shares that are undervalued, and the ability of REX to support some of the highest margins in the industry.

Risks

Profits at REX are determined by the price of corn and ethanol. The biggest risk in our opinion going forward is if the price of corn rises coupled with the price of ethanol falling. This is the worst of both worlds. However, REX utilizes forward grain purchase and forward ethanol and distiller grain sale contracts. This will help mitigate unattractive commodity price movements.

The majority of secular demand for ethanol is derived by governmental regulations. As we have shown above, positive news in regards to the increase in clean energy such as ethanol, correlates with positive price movements in stock prices such as REX. On the flipside, if there is a reduction in governmental intervention in the ethanol industry, REX has potential to see downside correlated movements.

The price of corn is a very volatile commodity. Corn prices are influenced by weather conditions, transportation costs, farmer planting decisions, the value of the US dollar and other general economic factors. Any substantial increase in the price of corn may have adverse effects on REX. However, due to the strong US Dollar and historically low corn prices, this risk can be somewhat mitigated in the near-term.

REX also relies heavily upon third party natural gas producers. Any substantial rise in natural gas will hinder the company's bottom line. With the price of natural gas trailing historical lows, natural gas prices have currently been helping REX's bottom line. REX does not have hedges against natural gas so a rise would have adverse effects.

We believe that a lot of the non-systematic risk has been reduced due to proper managerial aspects such as high cash to debt levels and buyback program.

Conclusion

REX is an attractive security for numerous reasons. An attractive balance sheet will help the company during this downturn. A competent management team gives investors the security they need at nights due to the fact (for lack of better words) management won't do something stupid with their high cash position. Finally the absolute and relative undervaluation coupled with the best margins in the industry makes REX an attractive takeover target during this downturn. There is a significant amount of bullish indicators with REX and in our opinion there is an asymmetric risk/reward skewed towards the upside for long-term value investors.