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BJORKLUND FUND

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Approach Resources (NASDAQ:AREX)

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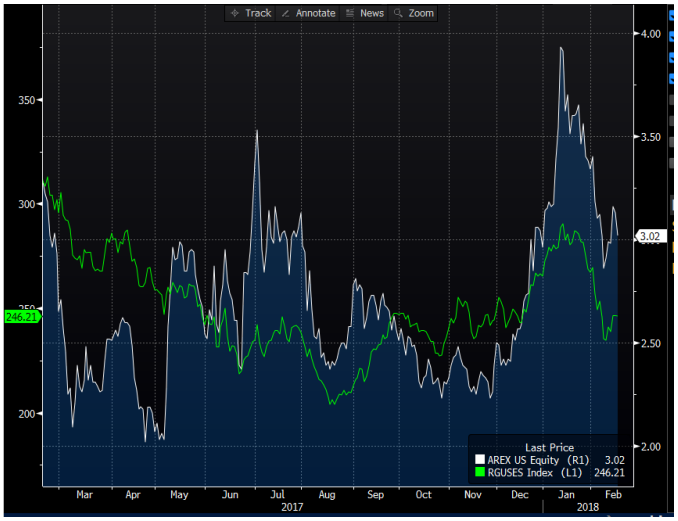
Sector: Oil, Gas & Consumable Fuels
Industry: Energy
Current Price: $3.02
Target Price: $18.87

Approach Resources is a small Oil, Gas and Consumable Fuels company that primarily does business in the Permian Basin of West Texas. While they use the traditional drilling method, they also aim to tap into fuel pockets via Horizontal Drilling and fracking, which gives them the benefit of reaching geographically difficult pockets of oil and natural gas. They pride themselves on a low cost structure compared to other companies in the Western Texas region.

HOLD

Current Price:	$3.02
Target Price:	$18.87
Market Cap:	286.90M
Beta:	1.887

Other key Metrics/Ratios
Long Term Debt/ Equity: 88.52
Revenue/ Avg Assets: 0.08
Adj ROE: -7.57
Days to Cover: 10.77
Shrs out/Float: 94.1M/44.2M

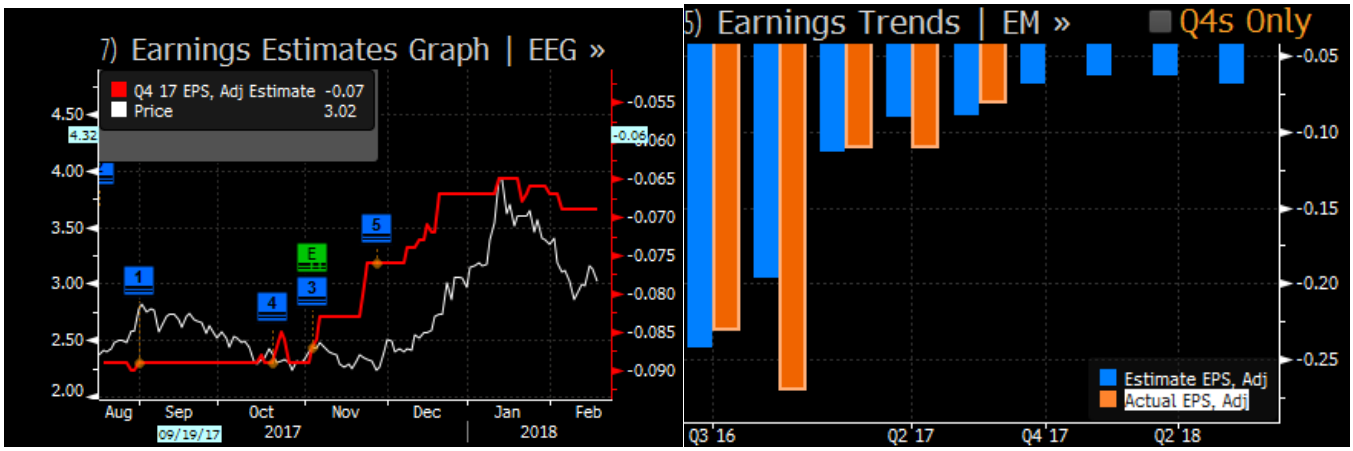


Thesis: AREX is a holding that has potential upside, but it is reliant on several factors. Its success hinges heavily upon the price of oil going to $200/barrel in the next 15 years in order to achieve a growth in revenue of 9% in the explicit period. Aside from this, AREX must drill into the 1500 well sites it has marked out, while still keeping to its low cost model, which could pose a challenge. Being a company with zero cash reserves and high probability of default, it brings about the question of sustainability of the company. AREX maintains value through the large amounts of valuable assets in a lucrative territory. Due to the possibility for upside, but many contingencies regarding liquidity, it is best to hold this stock for the time being.

Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

- Short Term(within the year): Continue low cost efficiency drilling model, expand via positive operating cash flows
- Mid Term(1-2 years): Expand into the over 1500 identified undrilled locations
- Long Term(3+): Oil prices per barrel to trend upwards, potential of a buyout

Earnings Performance:



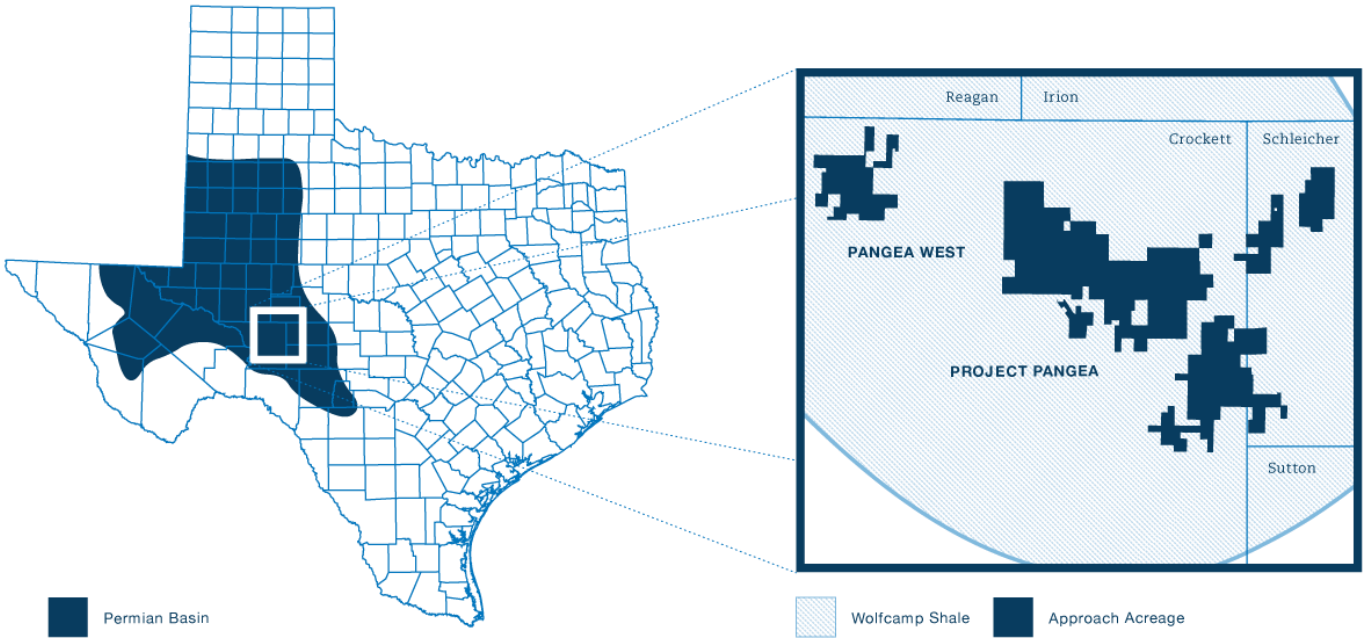
Approach Resources has been trending towards a positive EPS in recent years, but it is still negative due to the low price of oil per barrel. This low cost forces AREX to lower their capital expenditures in order to preserve liquidity. They cannot afford to keep all of the drill sites open and still generate revenue that makes it worth it.

Name (BI Peers)	Mkt Cap	Last Px	Tot Assets↓ LF	Chg Pct 1M	Rev - 1 Yr Gr:Y	EPS - 1 Yr Gr:Y	ROE	Dvd 12M
Median	7.38B	52.18	6.24B	-14.38%	7.04%	-2.22%	3.33%	0.18%
100) APPROACH RESOURCES INC	284.14M	3.02	1.09B	-16.57%	-47.54%	-189.03%	-6.33%	--
101) PIONEER NATURAL RESO...	30.42B	178.79	17.00B	-2.04%	15.66%	-38.55%	3.33%	0.04%
102) CONCHO RESOURCES INC	21.79B	146.52	13.48B	-6.51%	-7.23%	-7.54%	3.22%	--
103) PARSLEY ENERGY INC-CL...	7.38B	23.46	8.05B	-18.31%	59.09%	-2.22%	2.22%	--
104) DIAMONDBACK ENERGY INC	12.16B	123.88	7.77B	-3.23%	129.39%	178.49%	11.44%	--
105) RSP PERMIAN INC	5.58B	35.19	6.24B	-14.38%	-6.38%	-9.52%	3.36%	--
106) CIMAREX ENERGY CO	9.42B	98.73	5.04B	-21.54%	51.80%	559.31%	17.54%	0.32%
107) ENERGEN CORP	5.07B	52.18	4.85B	-8.90%	-47.94%	85.76%	-0.47%	--
108) LAREDO PETROLEUM INC	2.03B	8.36	2.02B	-23.44%	7.04%	400.10%	124.22%	--

(Accounting Adjustments: Adjusted for Abnormal Items When Applicable) 10) Analyze List

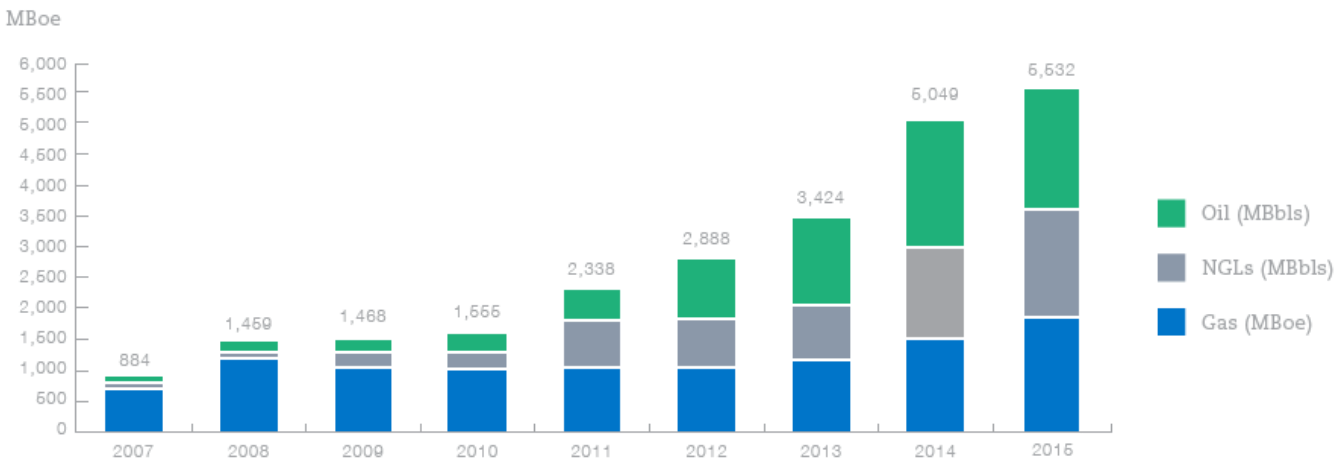
AREX is one of the smallest public companies in this sector operating out of the Permian Basin. They do have a considerable amount of assets, but are inhibited by the large amount of debt they have ($498M) and zero cash reserves. They have the lowest EPS growth rate of any of their competitors as well. Due to a drop in their stock by 17% in the past month, the have outpaced their competitors by -5% growth in price. AREX is a volatile stock with a beta of 1.887.

Western Texas and the Permian Basin



Approach Resources does its business in the Permian Basin located in Western Texas. The size of the basin is approximately 250 miles wide and 300 miles long. It owns 138,000 gross acres of land used for drilling (.36% of the basin). Much of their recent drilling has been focused on the Wolfcamp shale illustrated above. AREX is one of the smallest companies operating out of this region. The largest players are Occidental Petroleum, Exxon, Concho, Chevron and Apache. Due to recent advances in Horizontal Directional Drilling (HDD) and Hydraulic Fracturing, it has made accessible new deposits of oil and natural gas and increased the efficiency of drilling in the region.

AREX Production Growth (2007-Present)



AREX has grown in production steadily since 2010 after adoption new methods of drilling. AREX prides itself on its low cost structure of drilling, but this inhibits their expansion of wells.

Commodity Price vs Revenue Growth

AREX's growth in revenue is tied strongly with the price of oil per barrel and natural gas. Being a small firm, if the price of oil/gas drops, they may shut down drilling wells that prove to be uneconomical to run. In recent years, with a drop in price of crude oil per barrel and natural gas, they have reduced their capital expenditures and slowed their drilling in order to preserve liquidity.

Entity	CAGR
AREX Revenue	-8.03%
Oil	-7.94%
Natural Gas	-4.85%

New Drilling

AREX has over 1500 new drilling locations identified, which could prove beneficial for growth. On average, it costs $3.5 Million to develop a new well. Expansion could prove to be an issue for AREX even though they have the locations identified due to their low cash reserves, high long-term debt outstanding and poor credit. In 2016, AREX only developed 6 new wells using positive cash flow from operations. This does not disprove that a large expansion is not feasible, but their LT debt of $498.3mm combined with a Z-score of -.03 does not give them flexibility to borrow to tap into these new drilling locations. With a Debt to Equity

ratio of 88.52, AREX relies heavily on borrowing to finance their operations. If their ability to borrow is slowed down, their ability to expand is greatly inhibited.

Oil Prices and Industry Outlook

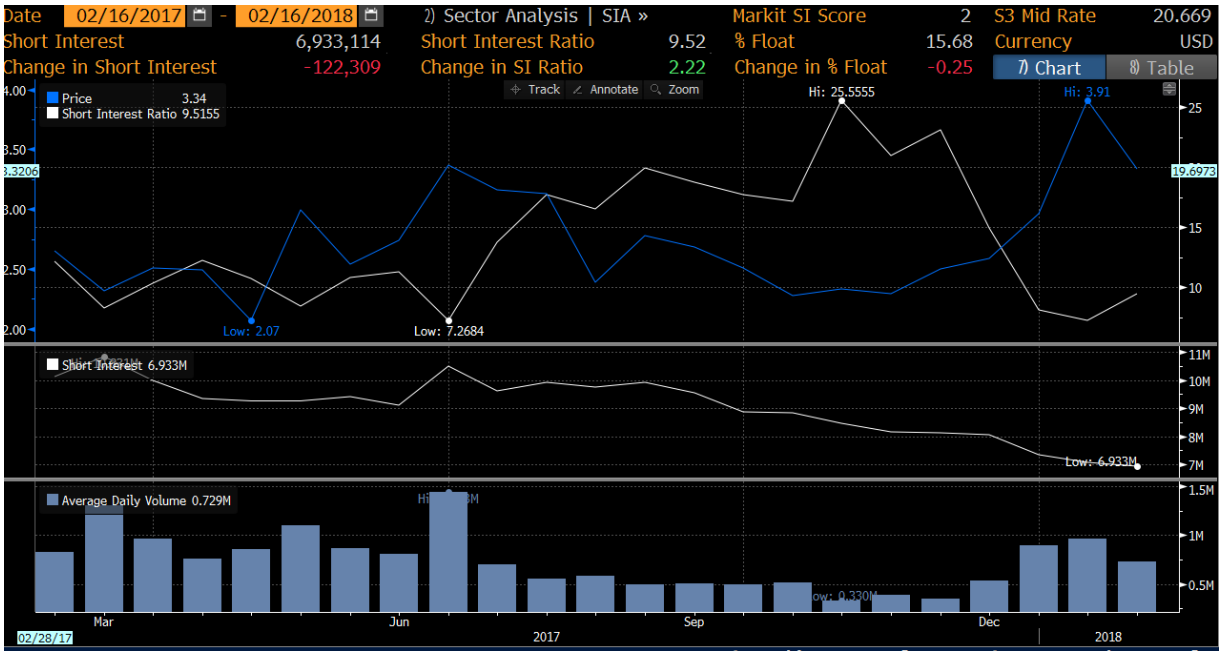
As mentioned before, AREX is highly susceptible to the price of oil. The price of their shares is correlated with the price of oil as shown in the graph. From this, we can determine that a rise in the price of oil can be very beneficial for shareholders. Data before 2010 on this correlation is not very useful, due to the less efficient ways of drilling AREX used, but once their methods became consistent with the industry, the correlation is unmistakable. Assuming the price of oil jumps to $200/barrel in the next 15 years, a growth rate of 10% is achievable, which can justify a growth in revenue of 9% in the explicit period. This is the single most important catalyst for the success of this company, as they cannot function at a competitive rate while oil prices decline, as you can see by the price of their share in comparison to the price of oil per barrel.

The entire Oil and Natural Gas industry is poised to continue its upward trend in the near future. United States based firms stand to benefit more so than overseas companies due to unrest in the Middle East and Nigerian militant groups targeting oil drilling sites. The U.S. continues to trend towards an oil independent nation, especially with new methods of drilling becoming the norm. In the longer term (15 years) we can start to see a shift towards renewable energy which can cause some concern. This combined with depleting resources could stand to increase the price of oil considerably.

Potential for Buyout

Although AREX lacks strong expansion ability, they have a considerable amount of assets for a company their size. With one of the smallest market caps of an oil company in the region at $284.14M, they have total assets of $1.09B, making them a potential target for buyout by a larger firm in the region. Companies such as Exxon have been aggressive in acquiring smaller drillers in recent years. In 2017, Exxon doubled its holdings in the Permian Basin. With a purchase of 275,000 acres of land exchanged for $5.6 Billion in stock, Exxon proved that bigger companies are actively shopping land in the region. In addition to Exxon, WPX Energy, Diamondback Energy, and Noble Energy have all paid billions to expand in the region in recent years. A takeover of AREX by a company with the ability to tap into the 1500 well sites could be mutually beneficial as AREX is sitting on a considerable amount of resources without the ability to access them due to low working capital. Assets in the Permian Basin are at a premium right now due to the ability to make strong returns even with oil being priced low. For example, Permian oil can be pumped at prices around $53/ barrel, while other U.S. shale fields require a price of $60/barrel to pump economically.

Short Interest and Days to Cover



AREX has a high Short Interest Ratio at 9.52. This, combined with the double helix shape of the graph lines shows that short sellers are having a tough time valuing this volatile stock. With the short positions open for longer periods, electing to short sell could be detrimental.

Conclusion:

Approach Resources has the potential to generate value for shareholders, but it is inhibited by its lack of working capital and slow expansion. Its low cost method makes it inexpensive to run day-to-day operations, but it also does not give them the ability to tap into all of their resources. The success of the company is dependent on the price of oil, which has the potential to grow exponentially in the next 15 years. For every increase in the price of oil and natural gas, we can expect to see the value of the stock climb. At this point and time, a hold is our greatest chance at regaining some of the loss we have gotten from holding this stock. While there is upside, it is not large or clear enough in order to warrant a buy. If we were to sell our holding of this stock, we would have to realize the full extent of the loss in the fund. There is strong potential to recoup some, if not all of this due to the value of the assets of AREX. A buyout could happen at a premium, or an increase in oil prices could raise the value of the stock. AREX is at a stalemate until this happens, as they cannot expand into their territory as fast as they would like due to cash and lending constraints. If the explicit period growth rate of 9% holds true, this company has a nice upside. Unfortunately, this is contingent on many factors out of control of management. Managerial culture has been actively trying to solve the company's issues, as illustrated by the executive pay cut of around 10% per executive with the exception of their CFO at a -49% pay cut. This gives me faith in that the managers want to fix the losses. Selling AREX at this point could be a mistake, as it is poised to grow with the industry. Buying AREX could also be a mistake as the company could fail. Our best bet of recuperating our loss is to hold and

trust that the price of oil will increase as well as the managers more efficiently using their over $1 Billion worth of assets.

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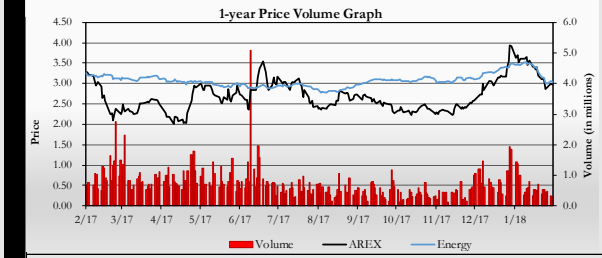
Approach Resources, Inc. (AREX)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Eric Bjorklund	Current Price:	$3.13	Intrinsic Value	$5.37	Target 1 year Return: 502.99%
2/16/2018	Divident Yield:	0.0%	Target Price	$18.87	Probability of Price Increase: 100%



Description

Approach Resources, Inc., an independent energy company, focuses on the acquisition, exploration, development, and production of unconventional oil and gas reserves in the United States.

General Information

Sector	Energy
Industry	Oil, Gas and Consumable Fuels
Last Guidance	February 12, 2018
Next earnings date	March 8, 2018

Market Assumptions

Estimated Equity Risk Premium	5.00%
Effective Tax rate	21%

Market Data

Market Capitalization	$286.90
Daily volume (mil)	0.32
Shares outstanding (mil)	90.79
Diluted shares outstanding (mil)	71.28
% shares held by institutions	109%
% shares held by investments Managers	16%
% shares held by hedge funds	3%
% shares held by insiders	5.12%
Short interest	7.64%
Days to cover short interest	10.77
52 week high	$4.21
52-week low	$1.93
Volatility	85.14%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
9/30/2016	-2.67%	-2.71%
12/31/2016	0.63%	-37.60%
3/31/2017	0.63%	29.24%
6/30/2017	-2.84%	-27.68%
9/30/2017	1.42%	-34.92%
Mean	**-0.57%**	**-14.73%**
Standard error	1.0%	4.4%

Market and Credit Scores

Recommendation (STARS) Value	0
Recommendation (STARS) Description	0
Quality Ranking Value	C
Quality Ranking Description	Lowest
Short Score	2
Market Signal Probability of Default % (Non-Ratings)	-1.707%
CreditModel Score (Non-Ratings)	b+

Industry and Segment Information

LTN Revenues by Geographic Segments	LTM Revenues by Business Segments
United States--100%	Exploration and Production of Oil, NGLs and Natural --100%
--	--
--	--
--	--
--	--

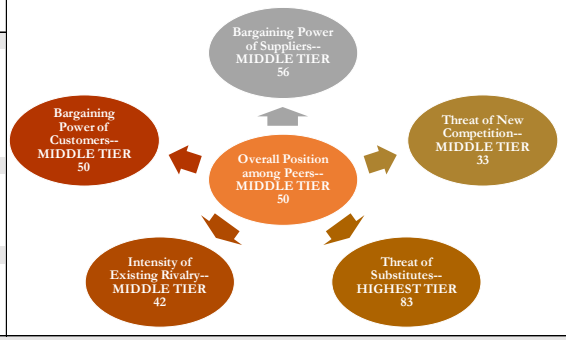
Peers

Earthstone Energy, Inc.	PetroQuest Energy, Inc.
Contango Oil & Gas Company	Callon Petroleum Company
Abraxas Petroleum Corporation	--
SRC Energy Inc.	--
Rex Energy Corporation	--

Management	Position	Total Compensations Growth	Stock Price Growth During Tenure
Craft, J.	Founder, Chairman and Chief Executive Officer	-11.28% per annum over 5y	-6.68% per annum over 5y
Yang, Qingming	President and Chief Operating Officer	-9.27% per annum over 5y	-6.68% per annum over 5y
Krylov, Sergei	Chief Financial Officer and Executive Vice Pres	-49.35% per annum over 2y	-27.59% per annum over 2y
Henderson, J.	Chief Administrative Officer and Corporate Secr	-11.59% per annum over 5y	-6.68% per annum over 5y
ogle, Suzanne	Vice President of Investor Relations and Corpor		
Dazey, Josh	VP & General Counsel		

Profitability	AREX (LTM)	AREX Historical	Peers' Median (LTM)
Return on Capital (GAAP)	-2.9%	1.54%	6.69%
Operating Margin	-38%	5.04%	50.32%
Revenue/Capital (GAAP)	0.08	0.31	0.13
ROE (GAAP)		5.6%	16.3%
Net margin		17.6%	24.5%
Revenue/Book Value (GAAP)	#VALUE!	0.32	0.67
Invested Funds	**AREX (LTM)**	**AREX Historical**	**Peers' Median (LTM)**
Cash/Capital	-0.3%	1.1%	9.3%
NWC/Capital	-1.6%	-0.6%	-13.8%
Operating Assets/Capital	101.9%	99.5%	103.6%
Goodwill/Capital	0.0%	0.0%	0.9%
Capital Structure	**AREX (LTM)**	**AREX Historical**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.41	0.29	0.93
Cost of Debt	5.2%	6.2%	5.2%
CGFS Rating (F-score, Z-score, and default Probability)	CC		
WACC	11.8%	8.4%	7.7%

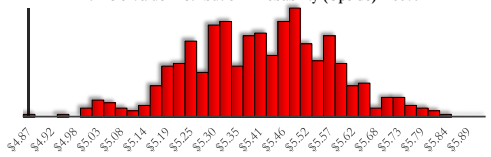
Porter's 5 forces (Scores are percentiles)



Valuation

Forecast Assumptions	Explicit Period (6 years)	Continuing Period
Revenue Growth CAGR	9%	2%
Average Operating Margin	53%	55%
Average Net Margin	-2%	23%
Growth in Capital CAGR	2%	2%
Growth in Claims CAGR	3%	2%
Average Return on Capital	4%	9%
Average Return on Equity	2%	12%
Average Cost of Capital	4%	6%
Average Cost of EquityKe	10%	10%

Intrinsic Value Distribution--Probability (Upside)=100%



Sensitivity Attribution Analysis