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Albemarle Corporation: ALB

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Sector: Materials
Industry: Chemicals
Current Price: $127.48
Target Price: $155.07

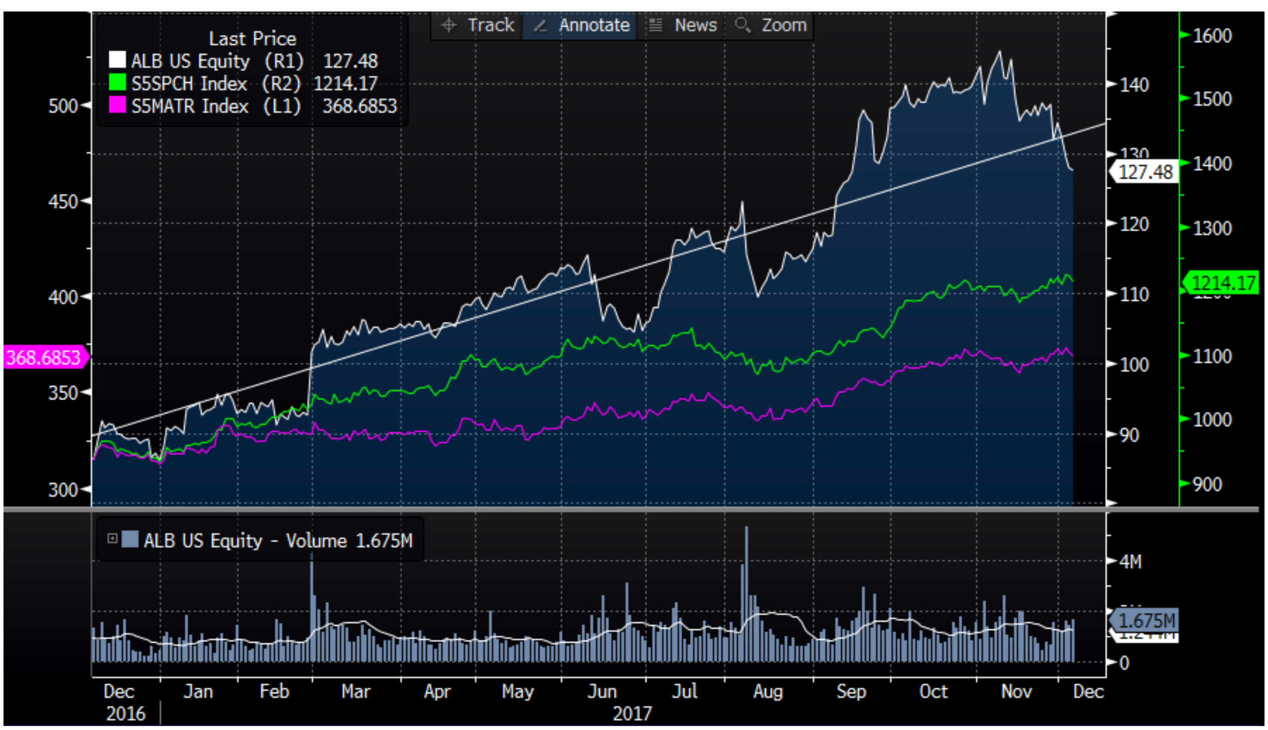
Albemarle Corporation is a large cap stock in the Chemicals Industry and Materials Sector. The company develops, manufactures, and markets engineered specialty chemicals worldwide. Albemarle generates revenues from three segments; "Lithium and Advanced Materials", "Bromine Specialties", and "Refining Solutions". Geographically, 29.8% of their total revenue comes from the United States and 70.2% from the rest of the world. Albemarle sells their products to a range of markets, including automotive, construction, consumer electronics, crop protection, food safety, lubricants, pharmaceuticals, plastics, and refining.

BUY

Current Price:	$127.48
Target Price:	$155.07
Market Cap:	14.1B
Volume:	1.675M
52 Week Range:	$85.60 - $144.99
ROC:	10.63%
WACC:	10.4%
Cash EBITA Margin 6yr:	13.9%
Cash Net Margin 6yr:	14.2%
Short Interest:	4 days to cover

Catalysts:

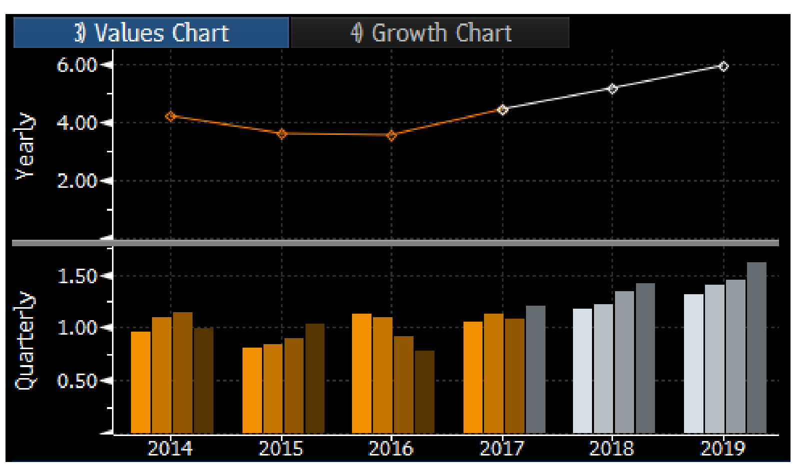
- Short Term(within the year): Rockwood acquisition starting to provide synergies
- Mid Term(1-2 years): Widening margins and increased demand from Panasonic Corporation
- Long Term(3+): The emergence of electric vehicles across the globe



Thesis: Albemarle Corp, headquartered in Baton Rouge, Louisiana, is a premier specialty chemicals company with leading positions in attractive end markets around the world. The most valuable product that they sell is lithium and lithium compounds. With the emergence of Tesla and other auto manufacturers creating electric vehicles, the growth in demand for lithium is inevitable. Albemarle is the leading provider of lithium resources that are directly used in the batteries, which will keep these cars moving. Albemarle has also acquired a fellow lithium-based company "Rockwood Holdings, Inc.," which is starting to increase margins in their lithium segment. The company operates through three segments, "Lithium and Advanced Materials", "Bromine Specialties", and "Refining Solutions". The lithium segment recently became the main revenue driver along with increasing margins. Net profit margin nearing 30% for this particular segment. I highly recommend a buy for this company at its current price of $127.48.

ALBEMARLE®

Earnings Performance:



Albemarle has consistently beat adjusted earnings projections for the last eleven quarters, revenue projections for eight. Bloomberg analysts are forecasting an adjusted earnings per share of 1.44 by quarter three of 2019. The growth rate between quarter three of 2016 and quarter three of 2017 was 18.7%. Using this CAGR, I forecasted the potential adjusted earnings per share the company could achieve by 2019, and received an eps of 1.52. This is based off of previous growth, not taking into account that we could very much see the demand for lithium increase. The stock's price is reflective of these forecasts, and is undervalued in my opinion. Revenue projections for 2018 are at $3.28 billion. Between the last two annual reports the company has produced an annual growth rate of 8.7%. Forecasted out to 2018 with this growth rate, we should expect revenue to reach

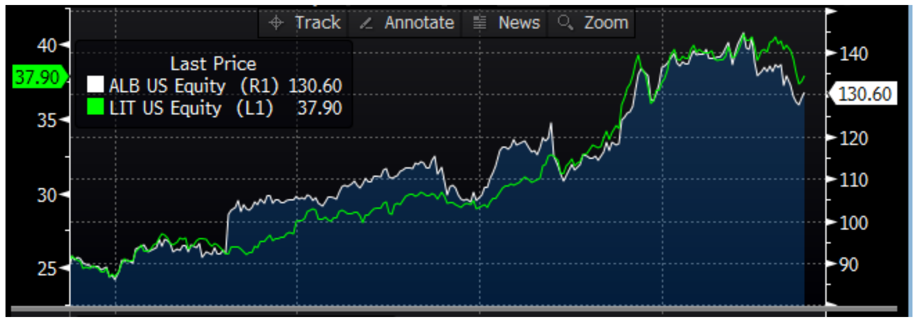
$3.4 billion. This is a $120 million undervaluation just based of their most recent growth rate. If lithium hits the market hard within the next few years with the emergence of more electronic/plug in vehicles, we should expect even larger returns from Albemarle.

Acquisition of Rockwood:

On January 12, 2015, Albemarle Corporation announced that it completed the acquisition of Rockwood Holdings, Inc. The deal was worth $6.2 billion in a cash-and-shares deal. Rockwood's products directly deal with lithium-ion batteries and other advanced varieties of batteries. With this acquisition, Albemarle was projected to have "broader customer reach, increased diversity across end markets, technologies and geographies and more consistent and predictable earnings growth." The market reacted negatively at first to this merger, but in 2016 the stock started to progress price-wise. In the beginning of 2016 ALB was trading around $49 per share, by the end of 2016 the stock rose to nearly $90 per share. I believe a large portion of this increase was due to the acquisition of Rockwood in 2015. The company's net profit margin for their lithium segment was 13.7% in quarter one of 2015, when the acquisition occurred. Derived from Albemarle's most recent quarter, they now have a net profit margin of 30% in their lithium and advance materials segment. The acquisition of Rockwood has increased this profit margin significantly, due to all of the added synergies between the two companies. They are reaching a broader consumer base as well, with $343.6 million in total revenue for the lithium segment in quarter three of 2017. This is a 72.8% increase since quarter one of 2015 ($198.8 million). Albemarle is settling in and focusing on their most profitable segment, lithium. With the acquisition of Rockwood, they increased the inflows of revenues concerning lithium immensely. Albemarle currently has $1 billion in cash on hand. The potential of more acquisitions such as this is highly likely, with expectations of booming lithium market in the near future.

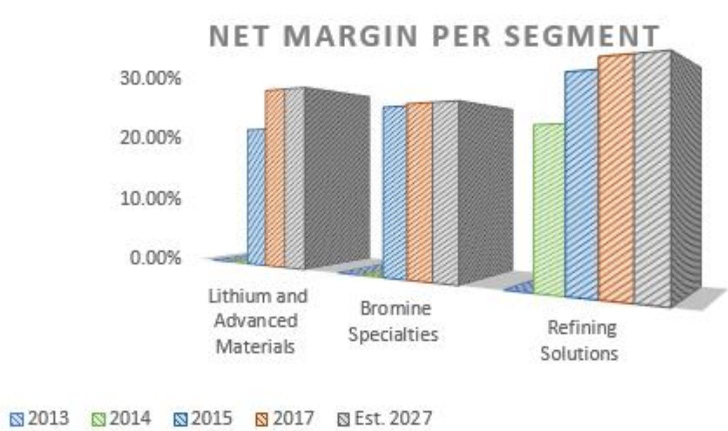
Lithium Market:

Lithium is a key component in products and processes used in a variety of applications and industries. Lithium is the essential ingredient used in the production of lithium ion batteries for electronic devices, transportation vehicles and future energy storage technologies. On their website, Albemarle claims to be "the industry leader in lithium and lithium derivatives, one of the highest growth markets in the specialty chemicals industry." They obtain lithium through solar evaporation of their ponds at the Salar de Atacama, in Chile, and in Silver Peak, Nevada. They then process it into lithium carbonate and lithium chloride at nearby plants. The migration from internal combustion vehicles to electronic vehicles is looking more and more likely. People are starting to realize the damage we are causing to the planet and are shifting to more eco-friendly alternatives. The market for lithium will increase as far as the electric vehicle industry lets it. In an article I read, it said that "California has unveiled a particularly ambitious plan to switch completely over to electric-powered vehicles by 2030." With more politicians around the world mandating a shift to eco-friendly vehicles, we will continue to see an increase in demand for lithium ions. One of Albemarle's biggest customers is Panasonic Corporation. Panasonic recently entered into a partnership with Tesla, the largest electric vehicle producer in the world. Electronic vehicles have just begun to hit the market, we could see large gains for Albemarle when Tesla starts generating actual sales. The price chart to the right shows Albemarle compared to LIT, which contains companies that consume lithium in the production of batteries as well as lithium refining companies. It is pretty clear that the two have a correlation with each other. As the lithium market progressed, so did Albemarle at similar percentages. In September, China released news that they have started to explore a ban on the production of cars fueled by petroleum, meaning gasoline or diesel. Lithium stocks soared 20%, along with Albemarle's price increasing relative to the news. Albemarle currently has $31.6 million in assets located in China. The country accounted for 13% of Albemarle's net sales in 2016. If the ban actually occurs, we could see Albemarle's stock soar. Recently the company's stock has been below lithium's on the price chart; historically they have been relatively the same, if not, ALB's growth has been above LIT's. This could show underpricing/undervaluation, forecasting that Albemarle will increase in price to return to the lithium market's trend line.



Segments:

Albemarle operates through three different segments; lithium and advanced materials, bromine specialties, and refining solutions. Their lithium segment develops and manufactures a broad range of basic lithium compounds, including lithium carbonate, lithium hydroxide, lithium chloride, and value-added lithium specialties and reagents. In 2014, Albemarle created this lithium segment to their business along with bromine specialties; previously in one segment labelled "Performance Chemicals". The bromine specialties segment of their company includes products used in fire safety solutions and other specialty chemicals applications, enhancing the flame resistant properties of materials. Albemarle's refining solutions segment provides hydro-processing catalysts that upgrade oil fractions to clean fuels and other usable oil feedstock. In 2017, net margin for the three segments were relatively close; ranging from 24% to 28%. Refining solutions actually had the largest margin at 28%. The stat that stood out to me the most was lithium's net margin growth between 2015 and 2017. This margin grew 6%, from a 21%



margin to a 27% margin. This means that the company is becoming more profitable in their lithium segment, which I believe demand will increase in. Between the last two annual reports, lithium revenues grew 16%, while all other segments stayed relatively consistent. From 2014 to 2016, the lithium segment has increased from $313 million in total revenue to $968 million; growth of 209% over two years. The electric vehicle revolution hasn't even begun yet and the revenues from lithium have already started increasing.

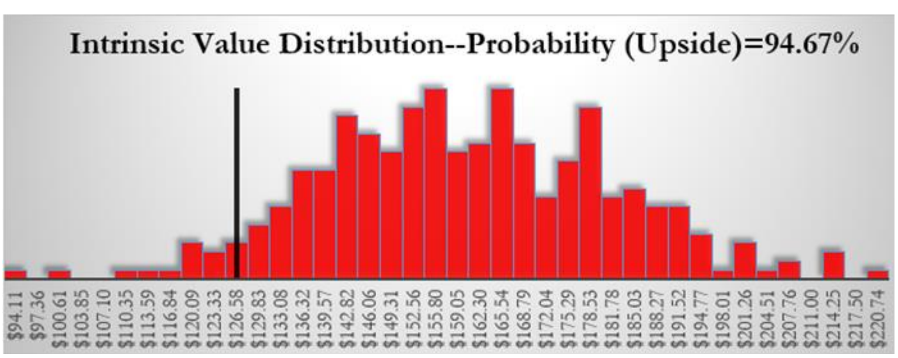
Ownership and Management:

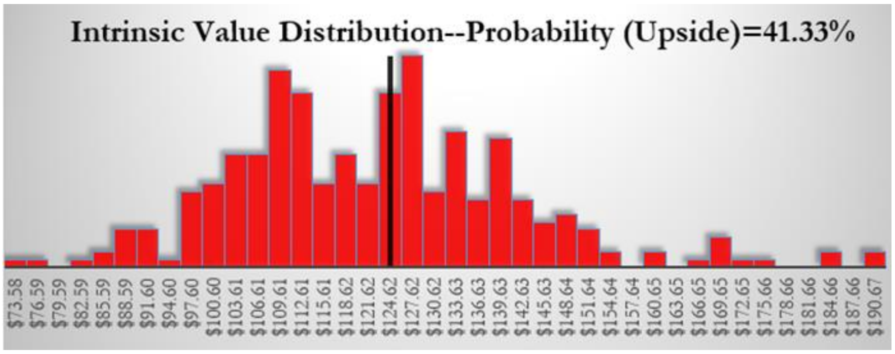
Albemarle has 110.5 million shares outstanding, with 99.6% of these shares available to the public. Vanguard currently holds the largest position in Albemarle, followed by Franklin Resources and Blackrock. Investment advisors account for 85.24% of the shares, hedge funds at 4.23%, and banks at 3.09%. Over the past week there hasn't been much movement in ownership. Insiders haven't been too active recently either, only selling off about 7,000 shares since June. They may be holding onto their stock in hopes of future gains due to lithium sales. Luke Kissam is the Chairman, President, and Chief Executive Officer of the company. Kissam joined Albemarle in September 2003 as Vice President and became CEO in 2011. Since he became CEO in 2011, the company's share price has more than doubled. Kissam has been with Albemarle for almost fifteen years; he knows the direction to lead this company. Compensation-wise these executives and officers earn a fair salary for managing a $14 billion company. Luke is the highest earner at $8.4 million per year, a large sum of this due to the stock's outstanding performace in 2016. Share price increased from about $51 per share to $90 per share over the course of 2016. This is a 76% increase in share price, resulting in an $8.4 million salary for the CEO.

Name	Title	Total Compensation
1) Luther Kissam	Chairman/President/CEO	8,434,150 (USD)
2) Karen Narwold	Senior VP/Secretary/Ge...	3,719,925 (USD)
3) Scott Tozier	Exec VP/CFO	2,476,741 (USD)
4) Matthew Juneau	Exec VP:Corporate Stra...	2,025,637 (USD)
5) Susan Kelliher		1,834,320 (USD)
6) Donald Labauve	VP/Chief Acctg Officer	778,621 (USD)

Expected vs Worst Case:

Based on my research of Albemarle Corporation, I conducted two separate proformas with one year target prices. I evaluated the company using an expected scenario and a worst case scenario. For the expected case, I increased the revenue growth rate to 10% for 2018, and then decreased the rate of growth continuously by 1% until I reached the continuing period in 2028 (having a 1.96% convergence value). I also forecasted the operating cost to revenue to continue to decrease, yet at a slowed pace, to 70% even in 2028. Currently the operating cost to revenue is 71.3%, decreasing 6.5% over the previous three years. I also projected continuing period operating costs to reflect last reported numbers. After running the Monte Carlo simulation, I received a one year target price for the company of $155.07. With the current price at





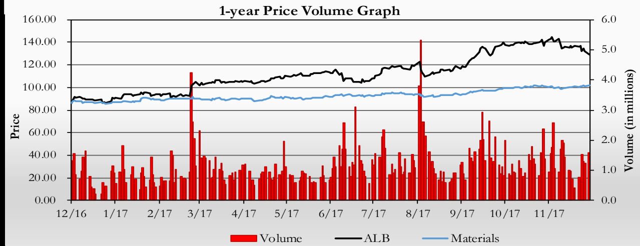
$127.48, this is a 21.6% return or $27.59 profit per share. I also ran a worst case scenario with different assumptions for the company. Although these are highly unlikely, I ran a projection to show the possible downside for Albemarle. For this proforma, I used growth rates suggesting that the company was reaching maturity. I decreased the revenue growth rate year over year from the base year to a convergence rate of 1.96%. I also increased operating costs to revenue 2%, now at 73% for the continuing period in 2028. For operating expenses, I used the historical averages for Albemarle, which were significantly higher than their most recent periods. Although these outcomes are highly unlikely, the downside was only a one year loss of $2.86 per share (2.2% loss). As a result, the possible upside I forecasted from investing in ALB over the next year is a 21.6% return whereas the possible downside is only a loss of 2.2%. This is an overall weighted average of 9.7%, giving both possible outcomes equal weights.

Conclusion:

Albemarle Corporation is a company with a remarkable history of innovation, collaboration, and environmental stewardship. The previous two years have been prosperous for the company, share price reaching all time highs. With the acquisition of Rockwood in 2015 and a promising lithium market, we should expect continued growth from Albemarle. Electronic vehicles have just begun to make there entrance into the market, I can't wait to see how much they progress. I recommend a strong buy at the stock's current price and to hold for a couple of years as Tesla becomes larger with lithium companies right behind them.

Albemarle Corporation (ALB) — CENTER FOR GLOBAL FINANCIAL STUDIES — BULLISH

Analysis by Nico Dumas	Current Price:	$127.48	Intrinsic Value	$143.84	Target 1 year Return: 22.59%
12/6/2017	Divident Yield:	0.9%	Target Price	$155.07	Probability of Price Increase: 94.67%



Description

Albemarle Corporation develops, manufactures, and markets engineered specialty chemicals worldwide.

General Information

Sector	Materials
Industry	Chemicals
Last Guidance	November 3, 2015
Next earnings date	February 27, 2018
Estimated Country Risk Premium	1.48%
Effective Tax rate	7%
Effective Operating Tax rate	7%

Market Data

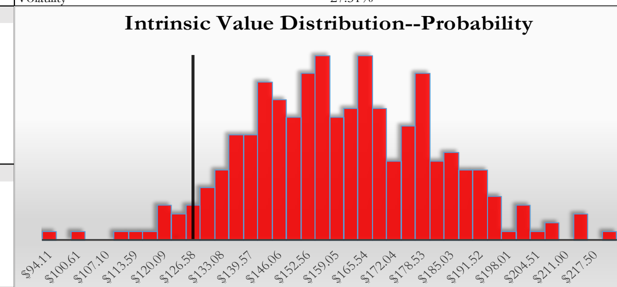
Market Capitalization	$14,085.99
Daily volume (mil)	1.68
Shares outstanding (mil)	110.50
Diluted shares outstanding (mil)	112.73
% shares held by institutions	116%
% shares held by investments Managers	83%
% shares held by hedge funds	3%
% shares held by insiders	0.35%
Short interest	5.64%
Days to cover short interest	4.63
52 week high	$144.99
52-week low	$85.60
Volatility	27.51%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
9/30/2016	0.45%	1.43%
12/31/2016	8.99%	-11.93%
3/31/2017	6.32%	5.46%
6/30/2017	0.33%	-2.89%
9/30/2017	2.84%	0.52%
Mean	3.79%	-1.48%
Standard error	1.7%	2.9%

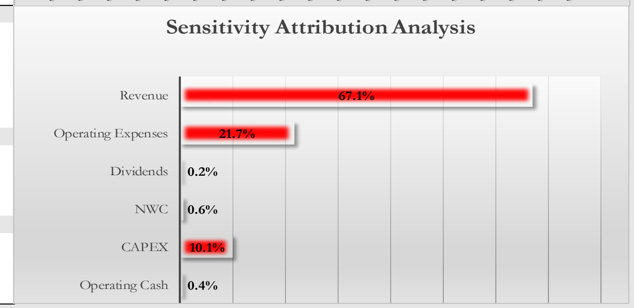
Peers

- FMC Corporation
- Ashland Global Holdings Inc.
- Celanese Corporation
- Axalta Coating Systems Ltd.
- Venator Materials PLC
- H.B. Fuller Company
- PolyOne Corporation
- PQ Group Holdings Inc.

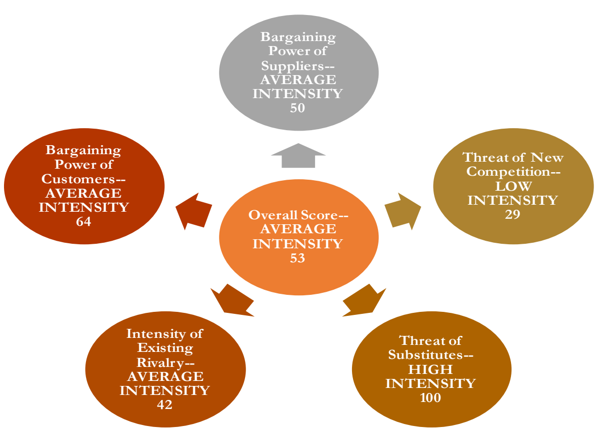


Management	Position	Total compensations growth	Total return to shareholders
Kissam, Luther	Chairman, Chief Executive Of	11.37% per annum over 5y	-0.33% per annum over 5y
Tozier, Scott	Chief Financial Officer and	-15.14% per annum over 4y	5.07% per annum over 4y
LaBauve, Donald	Chief Accounting Officer, Vi	N/M	N/M
Narwold, Karen	Chief Administrative Officer	3.35% per annum over 4y	5.07% per annum over 4y
Juneau, Matthew	Executive Vice President of	-11.2% per annum over 3y	-0.24% per annum over 3y
Mendoza, Ashley	Communications Director	N/M	N/M

Profitability	ALB (LTM)	ALB (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	2.9%	6.40%	6.60%
Operating Margin	9%	12.94%	7.06%
Revenue/Capital (GAAP)	0.32	0.49	0.94
ROE (GAAP)	43.0%	8.1%	10.9%
Net margin	40.6%	14.3%	4.8%
Revenue/Book Value (GAAP)	1.06	0.57	2.30
Invested Funds	**ALB (LTM)**	**ALB (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	-10.7%	11.5%	6.6%
NWC/Capital	12.4%	10.2%	17.2%
Operating Assets/Capital	73.0%	71.3%	53.0%
Goodwill/Capital	25.4%	6.9%	23.2%
Capital Structure	**ALB (LTM)**	**ALB (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.31	0.27	0.62
Cost of Existing Debt	2.5%	3.7%	5.0%
CGFS Rating (F-score, Z-score, and default Probability)	AA	BBB	BBB
WACC	3.3%	5.0%	6.1%



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



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	8%	19.7%	0.34
9/30/2018	10%	20.7%	0.45
9/30/2019	9%	22.0%	0.45
9/30/2020	8%	22.5%	0.44
9/30/2021	7%	23.0%	0.42
9/30/2022	6%	21.2%	0.41
9/30/2023	5%	21.3%	0.39
9/30/2024	4%	21.4%	0.38
9/30/2025	3%	21.3%	0.36
9/30/2026	2%	21.3%	0.34
9/30/2027	1%	21.2%	0.33
Continuing Period	2%	21.2%	0.31

Period	Return on Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	6.7%	3.3%	$145.68
9/30/2018	9.3%	6.1%	$157.17
9/30/2019	9.8%	5.9%	$167.01
9/30/2020	9.8%	5.8%	$176.98
9/30/2021	9.8%	5.9%	$187.35
9/30/2022	8.7%	5.6%	$197.46
9/30/2023	8.4%	5.5%	$207.44
9/30/2024	8.1%	5.5%	$217.62
9/30/2025	7.7%	5.5%	$227.98
9/30/2026	7.3%	5.4%	$238.21
9/30/2027	6.9%	5.4%	$248.42
Continuing Period	6.6%	5.4%	