

April 27, 2018

Woodward Inc.: WWD

Zachary DeLeonardo

Sector: Industrials

Industry: Aircraft

Current Price: \$73.01

Target Price: \$96.05

Woodward manufactures energy control systems for aircrafts, industrial engines, and industrial turbines. The two main segments are aerospace and industrial, both of which have multiple business within them such as jet turbines and defense mechanisms in aerospace and valves, nozzles, actuators, and sensors for the industrial division.



BUY

Current Price:	\$73.01
Target Price:	\$95.05
Market Cap:	4.55B
WACC:	8.3%
ROIC:	8.95%
Debt Rating:	BBB
Kd:	2.88%
Debt/Capital:	30.89%

Catalysts:

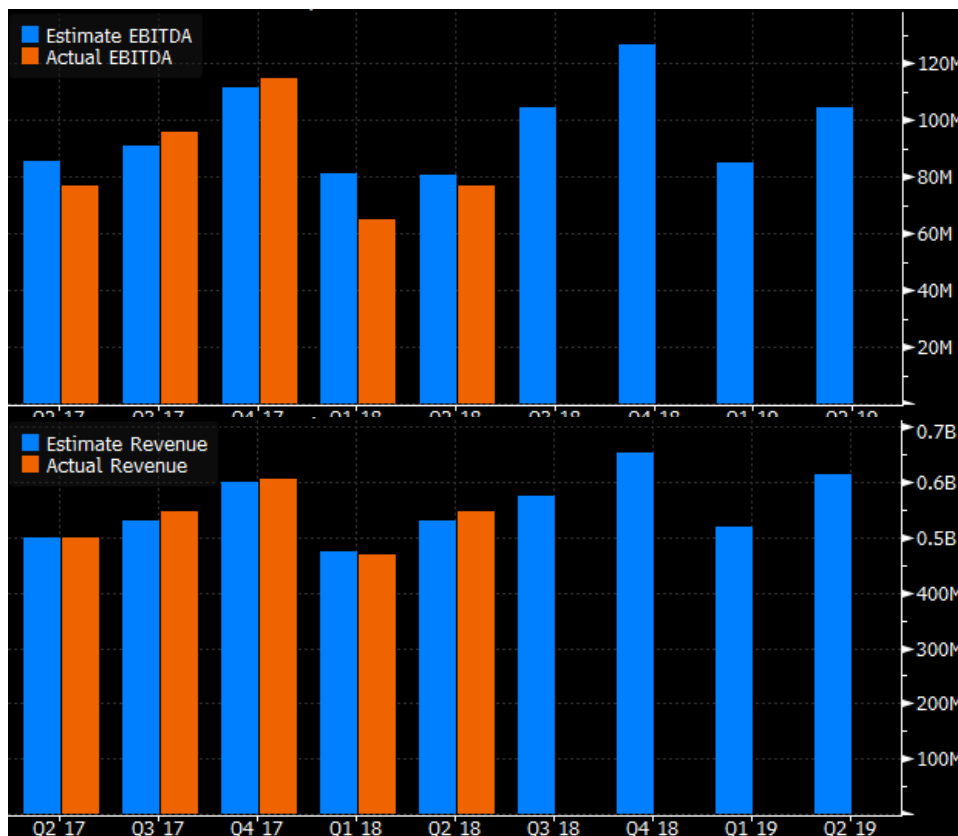
- Short Term: Rising global tensions and growing budgets to drive military applications, continued aerospace growth and ramping of airliners.
- Mid Term – Long Term: Anticipation of industrial turbine bounce back after recent recession in that industry.

Thesis:

Woodward is currently undervalued in the market due to their potential to capitalize on global tensions in their defense business along with their growth potential in the aerospace division. Even in a recessing turbine industry, Woodward has still managed to grow about 8.7% in price over the last 12 months. With diversification of their tech throughout industrial engines, turbines, aerospace solutions, and military applications, Woodward can outperform the market and create value for their shareholders. In the long term, an under demanded industrial turbines market is expected to rebound which will further compliment their growing aerospace segment.

Earnings:

Revenue is up FY 7% YoY while EBITDA is up FY 4% YoY. Moving forward, Woodward guidance suggests a 7% decrease in sales for industrial but up 12% in Aerospace. The low sales is a result of anticipated over demand in the industrial gas turbines arena where capacity is three to four times demand. This came out in their Q2 earnings call on April 22 and since then the stock price has dropped from ~\$74.16 to \$72.68. The small dip in price is a direct result of their lowered guidance, but not catastrophic due to industry wide news of industrial turbines being priced in for the last 3 quarters already. Below are charts showing quarter data for revenue and EBITDA. For Q2 2018 EBITDA is up 9.2% YoY while revenue is up 4.8%.



As we can see the company is slightly cyclical with Q4 being their best quarter and Q1 being their worst. EBITDA has missed analyst estimates for the first two quarter in 2018 ; revenue beat analyst estimates in Q2 and is estimated to see revenue growth YoY in quarters three and four in 2018. In the company's most recent earnings call questions, management believes they've hit the rock bottom, or are very close to rock bottom, for industrial power generation. At the bottom, guidance suggests this is a turning point

for an under demanded current market. This turnaround is driving high analyst estimates for the back end of 2018 revenues.

Segment Analysis:

Reported segments are Aerospace and Energy, which make up 64% of revenue and 36% of revenue, respectively. Woodward has a plethora of products to support an array of applications, as seen below, that range from military applications, to industrial turbines, to transportation.

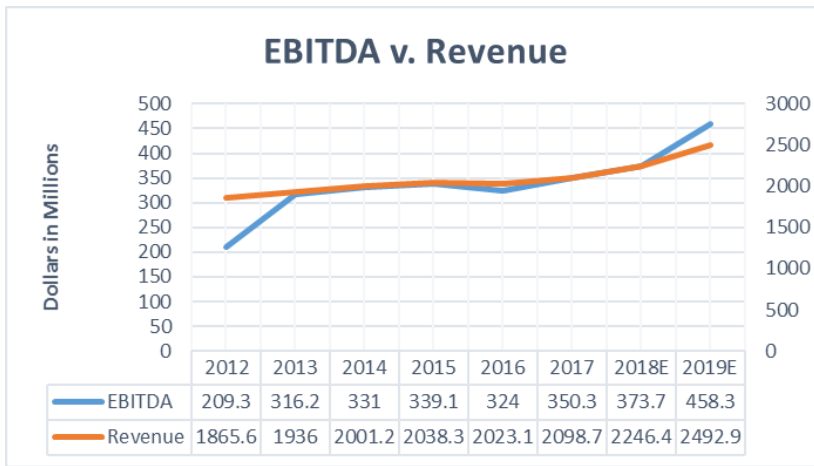
Aircraft	Industrial Turbines and Turbomachinery Systems	Civilian aerospace applications encompass flight control systems, cockpit controls, actuation solutions, sensing, turbine engine control, combustion systems, fuel controls, and many more. The applications can be recognized on major commercial jets such as the Boeing 737 MAX, Boeing 737, Airbus A320neo, and Airbus A320. Boeing, United Technologies Corporation, and General Electric
Aircraft Turbines	Industrial and Factory Automation	
Alternative Fuel Vehicles	Locomotive	
Armored and Tactical Vehicles	Marine and Naval	
Compressors and Pumps	Microgrid	
Electrical Power Distribution	Mobile and Industrial Equipment	
Electrical Power Generation	Rotorcraft	
Engines	Safety Systems	
Guided Missiles and Munitions	Unmanned Aerial Vehicles	
Hybrid	Wind Power	

account for more than 10% of sales in the Aerospace division. On the military side, Woodward produces precision control systems for U.S. missile programs such as the Joint Direct Attack Munition (JDAM), Small Diameter Bomb (SDB), Aim 9x Sidewinder, and Javelin tactical weapons. For the aerospace division, fiscal year 2017 direct government sales, indirect government sales, and commercial sales were \$106,685, \$362,536, and \$873,118, respectively (sourced from 2017 10-K).

The industrial segment took a hit in fiscal year 2017, specifically turbines, due to the impact of excess inventory in the market coupled with increased efficiency and the impact of renewables. To counteract the poor performance in turbines, reciprocating engines for transportation, oil, and gas improved especially in Asia, where the government is employing natural gas fueled trucks and cars to meet emission standards.

Growth:

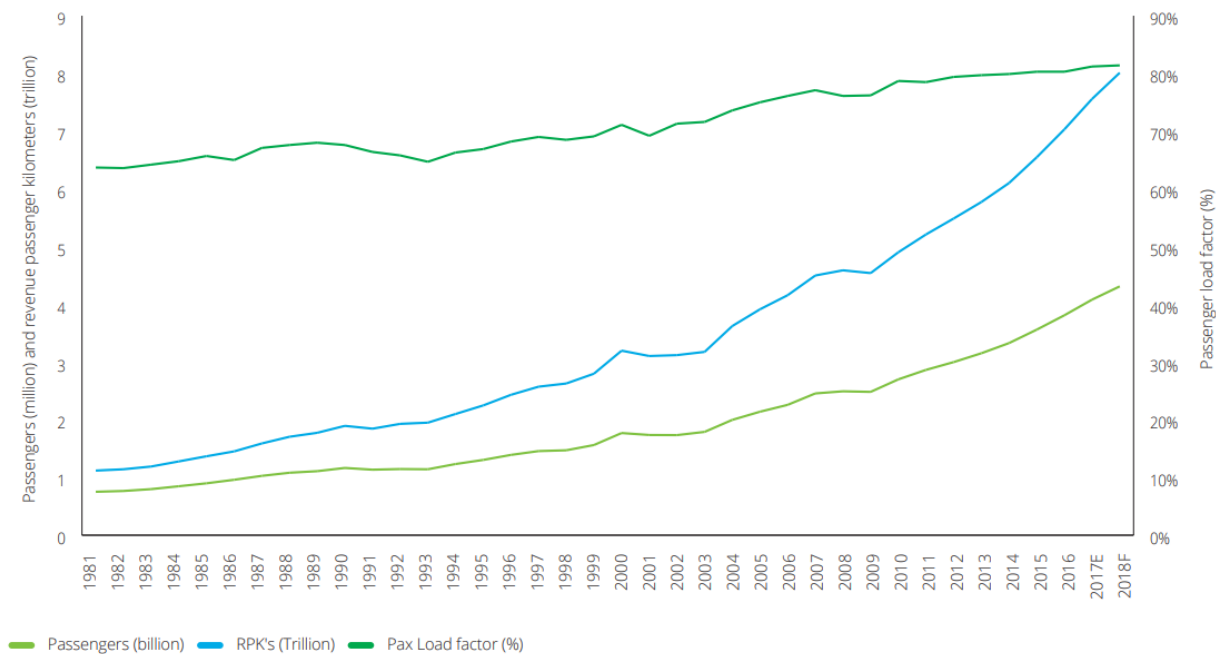
A past 5 year analysis shows a CAGR for revenue and EBITDA of 2.38% and 10.85%, respectively. In the following graph, it's evident revenue growth has been on a steady uphill tick while EBITDA spiked in 2013 and has remained relatively constant since. Estimates for 2018 and 2019 are consistent with a marginal ramp in both EBITDA and revenue. Piggybacking from 2017's revenue growth of 9%, YoY growth for 2018 is estimated to be ~7.04%. Growth potential lies primarily in their aerospace division, more specifically with their contracts with Boeing along with their military applications.



Industry:

Aerospace

The aerospace industry has a substantial aircraft unit backlog composed of primarily Boeing and Airbus, two major customers of Woodward. This bodes well for Woodward based on the increasing demand for 2018 after a subdued 2017 performance. Aircraft manufacturers are planning to increase production to meet increased customer needs as shown in the graph below, where revenue passenger kilometers (RPK) has heavily ramped up and is expected to continue to grow. Pax load factor, a ratio of passenger kilometers travelled to seat-kilometers available, has also recently ramped up and expected to continue growing as well (source: Deloitte.).



Military

Military defense spending has ramped considerably from the transition from the Obama administration to the Trump administration. In the beginning of Obama’s term, YoY growth for defense spending went from ~6% in 2008 to 1% in 2016, with dips into negative YoY growth in the middle of his terms. After Trump took office in 2016, defense spending went from a 1% YoY growth to 3% and is expected to remain relatively constant for 2018-2020 (source: Deloitte.). Aside from the hard numbers, increased global tensions from the reason bombings of Syria, causing relations with Russia to turn sour, whom backs Syria’s Bashar al-Assad’s regime. Recently, lawmakers released a \$1.3 trillion dollar spending bill that Paul Ryan refers to as “the Trump-Jim Mattis budget”. With increased military spending and the personalities of both Trump and Mattis, we can expect increased demand in the military sector.

Industrial

As previously mentioned, the biggest business in industrial, turbines, have recently taken a hit. With capacity to demand being 3-4 times, the industry has hit a trough in their business cycle. We can expect to see demand to stay relatively constant in the next few years with production from gas turbines sitting around 30 GW per year for the foreseeable future (source: turbine executive).

Debt:

Woodward currently maintains ~30% debt in their capital structure. Below is a snapshot of their revolving credit and notes. Notes due are adequately spread out, with the most immediate obligation due in October. With a rating of BBB and solid margins, Woodward will have no issues meeting these obligations in the future. As I’ll discuss later on, capital structures of ~30% debt is the average in this industry.

	March 31, 2018	September 30, 2017
Series D notes – 6.39%, due October 2018; unsecured	\$ 100,000	\$ 100,000
Series F notes – 8.24%, due April 2019; unsecured	43,000	43,000
Series G notes – 3.42%, due November 2020; unsecured	50,000	50,000
Series H notes – 4.03%, due November 2023; unsecured	25,000	25,000
Series I notes – 4.18%, due November 2025; unsecured	25,000	25,000
Series J notes – Floating rate (LIBOR plus 1.25%), due November 2020; unsecured	50,000	50,000
Series K notes – 4.03%, due November 2023; unsecured	50,000	50,000
Series L notes – 4.18%, due November 2025; unsecured	50,000	50,000
Series M notes – 1.12% due September 2026; unsecured	49,279	47,270
Series N notes – 1.31% due September 2028; unsecured	94,861	90,995
Series O notes – 1.57% due September 2031; unsecured	52,975	50,815
Unamortized debt issuance costs	(1,654)	(1,794)
Total long-term debt	588,461	580,286
Less: Current portion of long-term debt	-	-
Long-term debt, less current portion	\$ 588,461	\$ 580,286

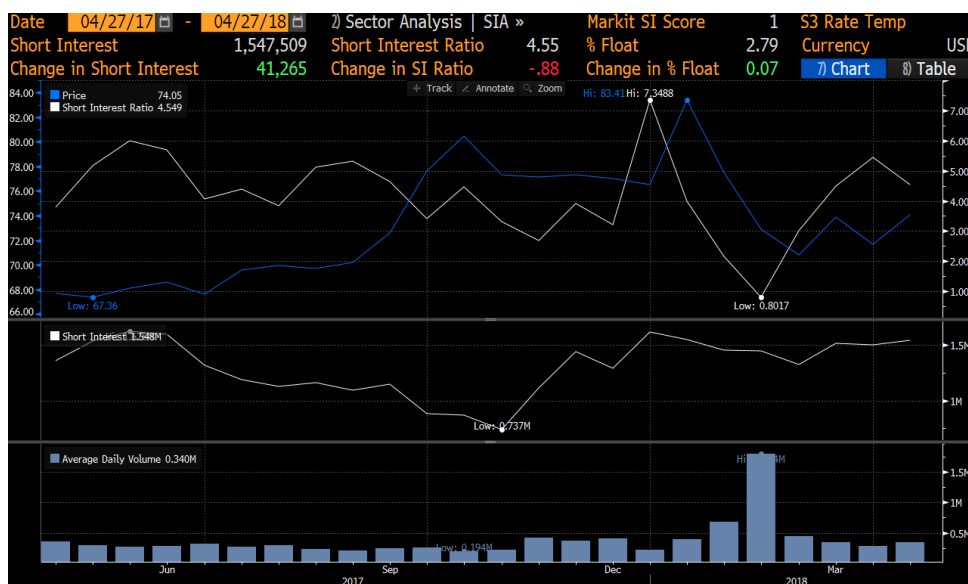
Competitors:

In terms of competition, Woodward sits at the industry average for TTM EBITDA margin, revenue YoY growth, and capital structure. They outperform in terms of the ROIC/WACC ratio showing value creation relative to their peers, along with outperforming in terms of ROE. The biggest concern for the immediate future from competitors is winning direct or indirect contracts for the U.S. military and partnerships with major airline companies to meet the ramping up demand.

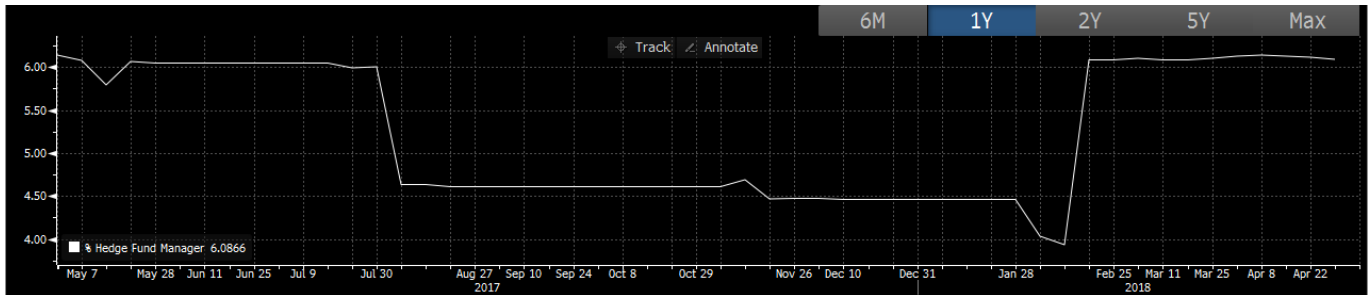
Name	Mkt Cap	T12M EBITDA Mrgn:Y	Rev - 1 Yr Gr:Y	Debt/Cap:Y+	ROIC/WACC Ratio	ROE:Y
Median	4,28B	16.67%	3.89%	33.56%	0.80	13.47%
100) WOODWARD INC	4,49B	16.69%	3.74%	30.89%	1.10	15.34%
101) MOOG INC-CLASS A	2,91B	13.39%	3.55%	44.08%	0.72	13.62%
102) TELEDYNE TECHNOLOGI...	6,79B	18.59%	21.11%	35.52%	0.88	13.31%
103) HEXCEL CORP	5,98B	23.06%	-1.55%	35.14%	1.88	17.98%
104) KLX INC	4,06B	16.65%	16.51%	34.29%	0.49	3.02%
105) HEICO CORP	8,39B	24.36%	10.79%	32.82%	1.21	17.22%
106) ESTERLINE TECHNOLOGI...	2,16B	15.08%	0.48%	29.61%	0.36	7.44%
107) AAR CORP	1,52B	7.50%	4.04%	14.68%	0.33	5.64%

Ownership Summary/SI:

The short interest ratio has been slightly volatile in calendar year 2018. Recently, the price and short interest ratio have started to favorably diverge. The massive dip in short interest ratio was due to the stock price plummeting after a press release that Woodward was not in talks with Boeing, which was fake news and was corrected by the company. Investors exited their short positions at that time and have since increased slightly, minus the most recent dip.



In terms of ownership, hedge fund managers have recently increased their position in Woodward, capitalizing on the steep drop in price in February. I believe hedge fund managers are going long due to their entry price, and anticipate they believe the stock still has room to grow since no positions have been exited recently.



Conclusion:

Woodward is buy at its current price. This is the perfect time to enter due to their future growth potential through military applications and room for growth through a growing aerospace industry. With major customers such as Boeing and Airbus, Woodward will be able to outperform the industry in terms of aerospace solutions. They have a stable capital structure and have no problems in terms of meeting debt obligations. Their plethora of products allows Woodward to diversify within both segments, counteracting the hit that gas turbines have taken and will continue to take until 2020. As long as Woodward wins contracts for military applications and the uneasy global tensions remain, Woodward can capitalize on this segment. Getting in at ~\$74.00 will allow for a targeted one-year return of 31.12%.

Woodward, Inc. (WWD)

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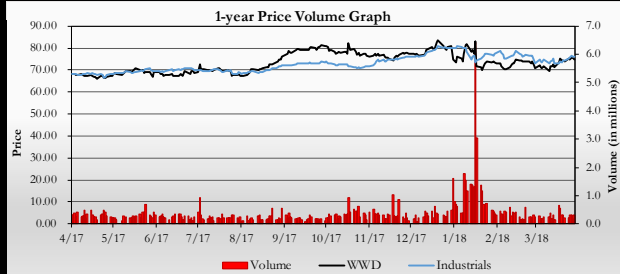
BULLISH

Analysis by **Zachary DeLeonardo**
4/27/2018

Current Price: **\$74.03**
Divident Yield: **0.8%**

Intrinsic Value: **\$86.58**
Target Price: **\$96.50**

Target 1 year Return: **31.12%**
Probability of Price Increase: **100%**



Description	
Woodward, Inc. designs, manufactures, and services energy control and optimization solutions for the aerospace and industrial markets worldwide.	
General Information	
Sector	Industrials
Industry	Machinery
Last Guidance	February 12, 2018
Next earnings date	July 20, 2018
Market Assumptions	
Estimated Equity Risk Premium	4.95%
Effective Tax rate	21%

Market Data	
Market Capitalization	\$4,536.00
Daily volume (mil)	0.57
Shares outstanding (mil)	61.27
Diluted shares outstanding (mil)	63.58
% shares held by institutions	109%
% shares held by investments Managers	64%
% shares held by hedge funds	5%
% shares held by insiders	2.73%
Short interest	2.46%
Days to cover short interest	2.37
52 week high	\$89.30
52-week low	\$65.22
Volatility	24.02%

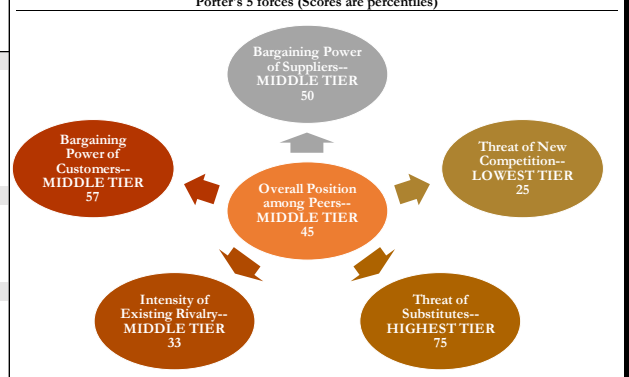
Past Earning Surprises		
Quarter ending	Revenue	EBITDA
3/31/2017	0.42%	-12.17%
6/30/2017	3.32%	5.95%
9/30/2017	1.84%	1.06%
12/31/2017	-0.37%	-32.42%
3/31/2018	4.31%	103.56%
Mean	1.90%	13.20%
Standard error	1.0%	5.5%
Management		
	Position	Total Compensations Growth
Gendron, Thomas	Chairman, CEO & President	-100% per annum over 4y
Weber, Robert	Vice Chairman, CFO, Principal Accounting Office	-100% per annum over 4y
Fawzy, A.	Corporate VP, General Counsel, Corporate Secret	
Patel, Sagar	President of Aircraft Turbine Systems	-100% per annum over 4y
Tysver, John	Corporate Vice President of Technology	
Guzzardo, Don	Corporate Director of Investor Relations & Treas	

Market and Credit Scores	
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--A	
Quality Ranking Description--High	
Short Score--1	
Market Signal Probability of Default % (Non-Ratings)	-0.318%
CreditModel Score (Non-Ratings)--bbb	
Stock Price Growth During Tenure	
	5.69% per annum over 4y
	5.69% per annum over 4y
	0% per annum over 0y
	5.69% per annum over 4y

Industry and Segment Information	
LTN Revenues by Geographic Segments	LTM Revenues by Business Segments
Europe (Excluding Germany)--15%	Aerospace--64%
Germany--8%	Industrial--36%
Asia--14%	--
Other Countries--6%	--
United States--58%	--
Peers	
Esterline Technologies Corporation	Franklin Electric Co., Inc.
HEICO Corporation	Barnes Group Inc.
Hexcel Corporation	Watts Water Technologies, Inc.
Aerojet Rocketdyne Holdings, Inc.	Crane Co.
ITT Inc.	--

Profitability		Invested Funds	
	WWD (LTM)		WWD Historical
Return on Capital (GAAP)	6.6%	Cash/Capital	4.2%
Operating Margin	9%	NWC/Capital	21.7%
Revenue/Capital (GAAP)	0.74	Operating Assets/Capital	51.8%
ROE (GAAP)	9.9%	Goodwill/Capital	22.2%
Net margin	7.8%	Capital Structure	
Revenue/Book Value (GAAP)	1.27		WWD (LTM)
		Total Debt/Market Capitalization	0.27
		Cost of Debt	4.1%
		CGFS Rating (F-score, Z-score, and default Probability)	BBB
		WACC	8.7%

Peers' Median (LTM)	
8.92%	12.72%
0.70	12.1%
8.1%	1.50
13.0%	0.32
42.5%	3.4%
31.5%	7.6%



Forecast Assumptions	
Revenue Growth CAGR	4%
Average Operating Margin	18%
Average Net Margin	12%
Growth in Capital CAGR	7%
Growth in Claims CAGR	1%
Average Return on Capital	8%
Average Return on Equity	8%
Average Cost of Capital	7%
Average Cost of EquityKc	8%

