

U.S. Ecology, Inc.

NasdaqGS:ECOL

Analyst: Daniel Bacchi

Sector: Industrials

BUY

Price Target: \$44.73

Key Statistics as of 11/12/2015

Market Price:	\$36.09
Industry:	Environmental & Facilities Services
Market Cap:	\$ 784.4M
52-Week Range:	\$32.76 – 52.99
Beta:	0.52

Thesis Points:

- Acquisition of EQ Holdings in 2014 allows for greater expansion in service and geographic location
- Shedding low margin businesses to create higher margins and create value
- Diversified customer base throughout the United States in a highly regulated and required industry

Company Description:

US Ecology, Inc. is a leading North American provider of environmental services to commercial and government entities. The Company addresses the complex waste management needs of its customers, offering treatment, disposal and recycling of hazardous, non-hazardous and radioactive waste, as well as a wide range of complementary field and industrial services. US Ecology's comprehensive knowledge of the waste business, its collection of waste management facilities combined and focus on safety, environmental compliance, and customer service enables us to effectively meet the needs of our customers and to build long-lasting relationships. Headquartered in Boise, Idaho, we are one of the oldest providers of such services in North America. US Ecology and its predecessor companies have been in business for more than 60 years. As of December 31, 2014, we employed approximately 1,800 people. (Form 10-K, December 31, 2014)



Thesis

U.S. Ecology, Inc. (ECOL) looks to “create the premier North American provider of environmental services,” and the recent acquisition illustrates management’s commitment to attaining the long term goal. In order to create value on their journey to the top, they are looking to streamline their operations by shedding non-core businesses. Already they have begun to show that are pushing for more geographic diversification within the United States with locations scattered on the map. Operating within a highly regulated industry provides revenue that generates a level of certainty of continued operations without much volatility; it is therefore a recommended buy; focusing on long term growth over the possibility of short term gains.

Industry Outlook

U.S Ecology, Inc. operates in the Environmental & Facilities Services Industry, their key market segments include: Aerospace and Defense, Industrial Manufacturing, Steel and Aluminum, Precious Metals, Oil Exploration & Production, Utilities, Consumer Products, Technology and Government.

Exhibit 1

Hazardous Waste is Generated by Diverse End Markets

Industry	Example Waste Streams
Aerospace / Defense	Paint Sludge / Radium
Industrial Manufacturing	Acids & Caustics, Heavy Metals
Steel & Aluminum	Emission Control, Dust, Spent Pot Liners
Precious Metals	Mercury, Crucible Waste, Unused Chemicals
Oil Exploration & Production	Spent Catalysts, Refinery Tank Bottoms, Drill Cuttings
Utilities	PCBs, Decommissioned Transformer Waste
Consumer Products	Unused Household Chemicals, Sludge from Battery Production, Heavy Metals from Pigments
Technology	Etching Solutions for Semiconductors
Government	PCBs, Radioactive

All of these markets provide a different source of revenue for U.S. Ecology, Inc. The diversification of revenue streams has reduced U.S. Ecology, Inc.’s risk regarding volatile revenue growth. Therefore it is reasonable to tie the future of U.S. Ecology, Inc.’s growth to the overall outlook of the industrials sector into 2016 and the future. The performance of the Industrials sector in the U.S. has been a catalyst for overall economic growth. Looking at the growth from 2010 to now for the S&P 500 Industrials Index is an

indication of the momentum that the sector has generated. Barring the dip caused by the Chinese stock market crash in August of 2015, the overall growth of the index has demonstrated the ability of Industrials to be the headwind for an economic recovery. The consensus on the momentum for the sector as a whole is positive with an average buy/sell ratio rating ratio of 1.4 to 1 for the industries within the sector. An indication that more companies, 294, have received a buy recommendation, compared to 213 companies receiving a sell recommendation. Demonstrating the market’s opinion that the sector, overall, is seeing positive momentum and in the long run we should see continued growth. An important contributor to the outlook for U.S. Ecology, Inc.

Exhibit 2



Porter’s Five Forces

There is an interesting relationship in the supply chain for the Environmental & Facilities Services industry. The suppliers are also customers, as they sell their waste and companies like U.S. Ecology, Inc. sells the recycled portions to other companies.

The bargaining power of suppliers is low, suppliers for this industry actually pay these businesses for removing waste. They may have a choice to switch service providers but there is a cost to switching from U.S. Ecology, Inc. as they provide a range of services that many companies require, the ability to use one service provider for a range of necessary services has a cost benefit compared to using multiple providers for multiple services. The suppliers that provide the industry with the equipment used do not have much bargaining power either, as volume is not critical and there is a large supply base for the majority of the equipment used.

The bargaining power of customers is low, the service that Environmental & Facilities Services businesses provide are within established guidelines and customers are required to conduct the disposal of waste in

accordance with regulations. Compared to other industries there are not a plethora of companies providing the services that U.S. Ecology has managed to. Most companies are only offering a portion of the services, therefore, the initiative to switch providers from U.S. Ecology would require selecting a number of providers. The products sold by environmental businesses are generally additional revenue and generally speaking there are a number of businesses looking to purchase recycled materials, indicating low power on that end of chain.

The intensity of existing rivalry is medium high, competitors battle for increased market share but loyalty is the reason why companies may not change their service provider. Bottom line the most important differentiation employed by an environmental service business is brand recognition. U.S. Ecology has realized this and brand recognition is among the reasons why they acquired The Environmental Quality Company (EQ) in early 2014.

The threat of substitutes is low, at this point in time no substitution is available for environmental services. The main threat is a reduction in waste that could cause a massive reduction in revenue for the entire industry.

The threat of new competition is low, the capital required to start an environmental service business is intense. Stiff regulations from the federal government, requiring operations that comply with established guidelines limit the ability for entrants to undertake a stake in environmental services.

Strategy and Initiatives

U.S. Ecology, Inc. employs a strategy that has multiple components that capitalizes on their “difficult-to-replicate combination of treatment and disposal assets and complementary service lines to provide a full service offering to customers and increase market share in the diverse markets they serve.” The components of their strategy that promise to enhance the overall strategy are:

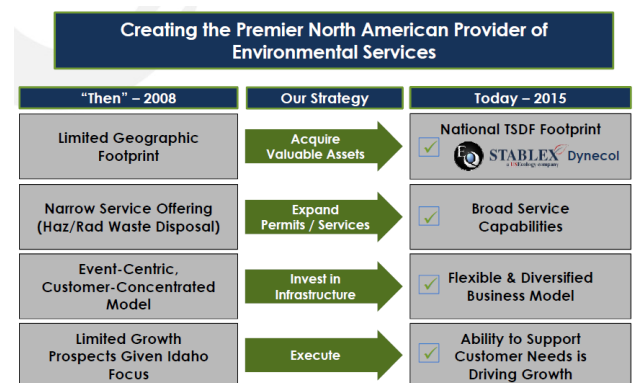
- Execute Best-in-Class Safety and Environmental Compliance Programs
- Leverage Regulatory Expertise to Expand Permit Capabilities and Broaden Cost-Effective Service Offerings
- Continue to Build on Our Robust Waste Handling Infrastructure to Increase Revenue from Existing Assets
- Execute on Marketing Initiatives to Grow Organically (from Form 10-K, December 31, 2014)

These components are the goals that drive U.S. Ecology to provide a customer service above and beyond competitors. They look to target waste streams that will provide high margins to create value. Expansion of current permits and other permits will allow U.S. Ecology to expand not only current markets but to other markets to increase revenue streams. Investing in infrastructure will result in lower operating costs due to increased efficiency from new technologies in waste management.

In addition to organic growth initiatives, U.S. Ecology, Inc. plans to grow inorganically, and the past has shown their commitment to this idea. They look to expand not only geographically but also into new segments of the Environmental & Facilities Services Industry. The acquisitions of competitors in segments that U.S. Ecology, Inc. operates in currently are to extend and complement the current operations, resulting in lower operating costs due to economies of scale.

Comparing the historical company to now has shown how effective the strategy has been and will be into the future.

Exhibit 3



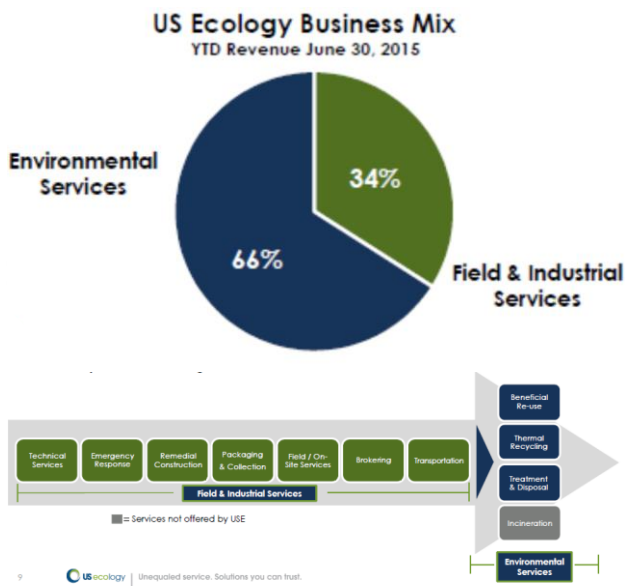
Back in 2008, the company was a fraction of the current size, and operated in a limited scope as compared to today. In a little over 8 years they have become a leader for Environmental & Facilities Services in North America.

Exhibit 4



With the current strategy they have become a fully integrated provider that possesses unique and irreplaceable assets: the permits required to do business. They are customer oriented, as they make it a goal to provide the best service to their customers. With a national footprint they are able to gain large companies with national coverage as customers, they are the one solution to their overall waste needs due to the multiple services they provide. The ability to provide services on location and use the waste to produce sellable products illustrates the scale advantage U.S. Ecology, Inc. possesses over competitors.

Exhibit 5



- Remediation - the cleanup of a site that had contamination due to operating practices that leaked chemicals or materials into the ground.
- Transportation & Logistics – the transportation of waste for disposal at a facility owned by U.S. Ecology, Inc.
- Total Waste Management – U.S. Ecology outsources the management, tracking and reporting of waste streams for corporations.
- Retail – total management of hazardous waste programs for retail consumers.
- Lab Pack – the management of chemical waste in small quantities.
- Household hazardous waste collection/Less-Than-Truckload – U.S. Ecology, Inc. operates programs for the collection of hazardous waste generated by residential consumers.

U.S. Ecology maintains a number of other operations related to the market, including refinery services, industrial cleaning and marine and terminal services.

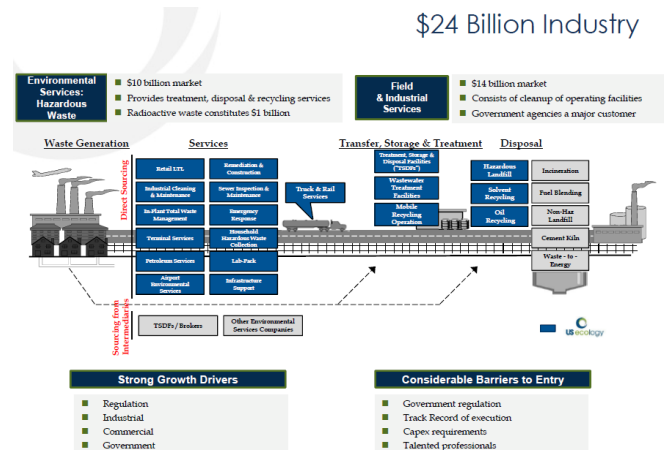
In an effort to regain the margins that were seen in years prior, U.S. Ecology has decided to sell Allstate Power Vac. to a private investor. The business unit represented 11% of YTD revenue and 3% of YTD adjusted EBITDA (in September 2015). The divestiture of this unit reflects management’s goal of shedding the units that are low margin and not contributing to the value creation of U.S. Ecology, Inc. as a whole.

The identification and sell off of businesses that do not and cannot produce high margins will be the catalyst to furthering value creation in the future.

Breakdown of Services

Due to the acquisition of EQ Holdings, Inc. in 2014 U.S. Ecology, Inc. increased their diversification into markets they previously had not occupied. Before EQ, U.S. Ecology, Inc. provided Environmental Services only. Providing only treatment, disposal and recycling of waste generated by corporations contributed to the high margins that, before 2014, U.S. Ecology has experienced. At this point in time they only served a niche market, collectively valued at \$10B, the growth of those markets was reliant on the growth of the industries contained in the market. The acquisition of EQ, Holdings, Inc. opened U.S. Ecology, Inc. to a new market, Field and Industrial Services, a \$14B market. Effectively doubling the rate at which they could grow. A bold move that on paper looks genius. The field and Industrial Services operations of U.S. Ecology, Inc. consists of:

Exhibit 6



Financials

The acquisition caused large changes within the finances of U.S. Ecology, Inc. Operating costs increased from 64.5% in 2013 to 77.5% in the LTM causing decreasing margins in the same period. The increase in operating costs were mainly attributable to the cost of revenue increase from 61% in 2013 to 70% in the LTM.

The acquisition of EQ Holdings, Inc. was a large endeavor for U.S. Ecology, Inc. as EQ was nearly twice as large as ECOL. It was necessary to finance the acquisition with debt causing the total debt balance to increase from zero in 2013 to \$397.79M in 2014. This dramatically increased the interest expense for the corporation but, based on the return that was generated from the acquisition, debt financing was a smart choice. The use of debt changed U.S. Ecology, Inc.'s capital structure, the WACC in 2013 was 8.35% and due to the lower cost of borrowing WACC in the LTM was 4.21%. The acquisition not only brought additional revenue but caused a decrease in WACC.

Acquisition of EQ Holdings, Inc.

The acquisition of EQ in 2014 was a bold move by U.S. Ecology, Inc. and as result they have received extra scrutiny from the market. On face value the acquisition was the wrong move, EQ Holding, Inc. was a lower margin Environmental & Facilities Services provider, resulting in dilution of earnings. The acquisition resulted in a massive increase to goodwill and intangibles. Operating margins decreased in the periods following the acquisition; in 2013 NOPLAT margin was at the firm's highest, 18%, after the acquisition the margin dropped to 14% in 2014 and in the LTM is at 12%. On the surface this situation has positioned U.S. Ecology for value destruction. There is no doubt that it hurt ECOL; Think of the acquisition as the big fish being eaten by a smaller fish, it will be a while before the smaller fish is ready to move on from the meal. In U.S. Ecology, Inc.'s case, time is necessary for the full integration to take place.

Other financial implications of the acquisition include:

- 189.4% growth in revenue from 2013 to the LTM
- Increase in cost of revenue from 61% in 2013 to 70% to the LTM
- Decrease in EBITDA from 36% to 23% from 2013 to the LTM

- Even through the acquisition, U.S. Ecology, Inc. managed to increase return on invested capital from 39% in 2013 to 49% in the LTM
- Reduced WACC from 8% in 2013 to 4% in the LTM

The face value of the acquisition looks like value destruction, but a deeper financial analysis paints a different picture: U.S. Ecology is still creating value, albeit at a decelerated rate, demonstrating the effectiveness of management; they identified a strategic acquisition that on the surface looked like value destruction, but instead has continued value creation. The historical financials of U.S. Ecology, Inc. shows they had the opportunity to take a decreased creation of value without destroying value. Management has seemed to hit the ball out of the park on this acquisition. As U.S. Ecology, Inc. sheds the segments that are low margin without any opportunity to increase they will build a lean high margin company with full diversification into the high margin segments of the overall industry. Recently U.S. Ecology divested Allstate Power Vac. business, a low margin service that didn't fit into the strategy and focus of U.S. Ecology, Inc. As the shedding continues we will begin to see margins rise back to the historical; returning to incomparable value creation in the industry. The success of the integration does not rely on the shedding of the low margin businesses but also on the integration of departments; economies of scale will have an impact on the overall contribution to increasing margins.

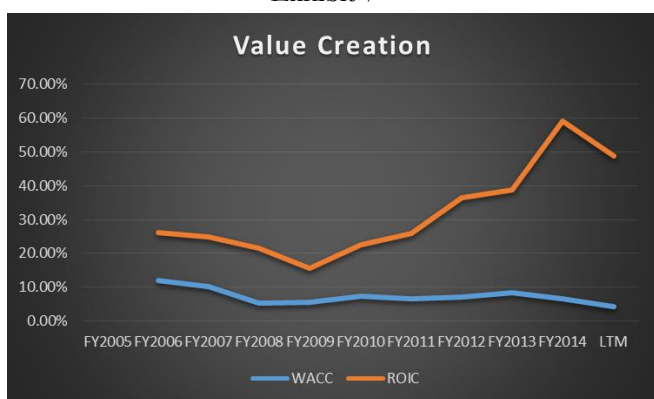
The timetable for the return to historical is muddy, it all depends on how fast management is able to determine the divestures and implement the overall integration of the different units. The stock is very close to the price that was seen in 2014 prior to the acquisition. If the integration process can produce a NOPLAT near 14% for the year end, the price at this time should be the bottom.

The Market is Undervaluing U.S. Ecology, Inc.

I believe the market has primarily looked at the decelerating value creation when valuing U.S. Ecology, Inc. and therefore has undervalued the equity of ECOL. Most of my assumption is based on quantitative data supported by qualitative data. Many analysts predict that revenue growth for the next two – three – years will be negative; based on the strategy to sell off units that do not produce favorable margins I believe the analysts are

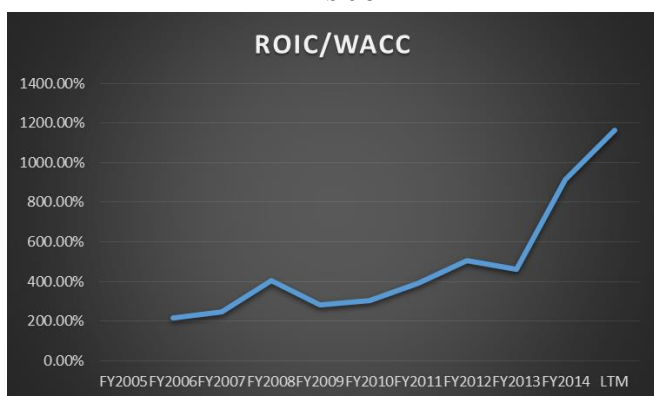
correct. But the sell offs will positively affect value creation. As the markets grow, U.S. Ecology, Inc. revenue will grow and as these less profitable unit are sold off, more value will be created. The brand recognition of EQ Holding, Inc. will allow for organic growth into the future and I don't believe the market recognizes the possible value that U.S. Ecology will generate. Before the acquisition they were creating value at a high rate, as shown in exhibit 7, after the acquisition a decrease in the level of value creation was seen, ROIC in FY 2014 was at a historical high when it reach 59%.

Exhibit 7



ROIC/WACC is still higher than most firms in the market and I think this demonstrates the ability of management to deliver on strategies and initiatives. The market doesn't see the potential that could be created from U.S. Ecology, Inc. and I believe that is why it is severely undervalued.

Exhibit 8



Valuation

The valuation of U.S. Ecology, Inc. is based on a valuation computed by a pro forma using a discounted cash flow model and a main focus on invested capital. At the end of the report is attached a brief overview of assumptions and results of the pro forma.

When valuing U.S. Ecology, Inc. an aggressive approach has been applied. Because of the acquisition a 10 year period to convergence was chosen. I took a rather aggressive approach taking into consideration a possibility for management to fully integrate EQ Holdings, Inc. and shed the non-core business units in 2 years.

Those two years will see negative revenue growth as business units with lower margins are sold off resulting in less revenue. Analysts' estimates on average see a revenue loss of -4.1% in FY2015 and a loss of -8.6% in FY2016. I rejected these estimates and estimated a loss of -4% in FY2015 and a loss of -2% in FY2016. The two years beyond that will experience no revenue growth. Starting in FY2019 revenue growth will be 1% a year until it reaches 3% in FY2021 and continues to the continuing period, these assumption were rather conservative in comparison to the first 2 years.

I assumed that all other forecast variables, such as operating costs, beta, capital structure, etc. will remain the same as the snapshot of the business today. Cash will not be reinvested into the business and will placed into an excess cash account where it will produce interest income.

The intrinsic value was computed as \$44.39 and the 1 year return will net \$44.73.

Summary

A qualitative and quantitative analysis has led me to believe that U.S. Ecology, Inc. is a cash cow. Value creation into the future is apparent, and the effectiveness of the management will play a large part in their ability to bring the business back to the historical. I recommend at BUY at the current price of \$36.54.

Sources:

- U.S. Ecology, Inc. , 10-K
- Capital IQ
- Bloomberg
- SEC
- www.usecology.com
- U.S. Ecology Investor Presentation

CENTER FOR GLOBAL FINANCIAL STUDIES

US Ecology, Inc. **ECOL** Analyst **Daniel Bacchi** Current Price **\$36.54** Intrinsic Value **\$44.39** Target Value **\$44.73** Dividend Yield **2%** 1-y Return: **24.36%** **NEUTRAL**

General Info		Peers	Market Cap.	Professional	Title	Management	Comp. FY2012	Comp. FY2013	Comp. FY2014
Sector	Industrials	Casella Waste Systems Inc	\$249.08	Feeler, Jeffrey	Chief Executive Officer, President and Director		\$520,996	\$1,350,902	\$787,092
Industry	Commercial Services and Supplies	Clean Harbors, Inc.	\$2,457.86	Gerratt, Eric	Chief Financial Officer, Executive Vice President		\$378,645	\$674,513	\$443,938
Last Guidance	October 29, 2015	Waste Management, Inc.	\$23,954.47	Welling, Steven	Executive Vice President of Sales and Marketing		\$614,934	\$819,641	\$599,009
Next earnings date	February 26, 2016	Waste Connections Inc.	\$6,754.77	Bell, Simon	Executive Vice President of Operations - Env		\$495,615	\$784,372	\$458,688
Market Data		Covanta Holding Corporation	\$2,086.77	Romero, Mario	Executive Vice President of Operations, Field		\$0	\$0	\$298,784
Enterprise value	\$1,137.23	Heritage-Crystal Clean, Inc	\$250.84	Ipsen, Wayne	Vice President, Compliance Officer, Corporate		\$0	\$0	\$0
Market Capitalization	\$4,449.48	Republic Services, Inc	\$15,209.04	Past Earning Surprises					
Daily volume	0.22	Quest Resource Holding Corporation	\$88.30			Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"
Shares outstanding	21.73			Last Quarter		-3.32%	-11.18%	-16.67%	3.87%
Diluted shares outstanding	21.71			Last Quarter-1		-4.97%	-4.87%	-18.37%	4.48%
% shares held by institutions	26.01%			Last Quarter-2		-0.98%	-11.96%	0.00%	3.83%
% shares held by insiders	0.77%			Last Quarter-3		5.27%	-1.20%	16.67%	5.22%
Short interest	3.95%			Last Quarter-4		8.92%	19.04%	35.42%	7.22%
Days to cover short interest	5.83			Standard error		2.6%	5.6%	10.2%	3.74%
52 week high	\$52.99			Standard Error of Revenues prediction		2.6%	Industry Outlook (Porter's Five Forces)		
52-week low	\$32.76			Imputed Standard Error of Op. Cost prediction		5.0%	Bargaining Power of Suppliers (100th Percentile), Bargaining Power of Customers (14th Percentile), Intensity of Existing Rivalry (33th Percentile), Threat of Substitutes (67th Percentile), Threat of New Competition (83th Percentile), and Overall (82th Percentile).		
5y Beta	0.87			Imputed Standard Error of Non Op. Cost prediction		8.5%			
6-month volatility	28.39%			Proforma Assumptions					

Convergence Assumptions		General Assumptions		Items' Forecast Assumptions			Other Assumptions	
				Base year (LTM)	Convergence period (Industry)	Adjustment per year		
All base year ratios linearly converge towards the industry ratios over an explicit period of 10 years		Money market rate (as of today)	0.37%	Operating Cash/Rev.	0.00%	0.00%	Tobin's Q	80%
	Risk-Free rate (long term estimate)	2.95%	NWV/Rev.	18.41%	18.41%	0.0%	Excess cash reinvestment	Money market rate
	Annual increase (decrease) in interest rates	0.1%	NPPE/Rev.	35.12%	35.12%	0.0%	Other daims on the firm's assets	\$0.00
	Marginal Tax Rate	37.5%	Dpe/NPPE	14.39%	14.39%	0.0%	Capitalization	
	Country Risk Premium	6.0%	NOPAT MARGIN	12.21%	12.21%	0.0%	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years	
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	77.48%	77.48%	0.0%	R&D expenses are not capitalized	
LTM		\$581.97	SBC/Rev.	0.36%	0.36%	0.0%	E&P expenses are not capitalized	
FY2015	-4.0%	\$558.69	Rent Exp./Rev.	0.67%	0.67%	0.0%	SG&A expenses are not capitalized	
FY2016	-2.0%	\$547.52	R&D/Rev.	0.00%	0.00%	0.0%	Valuation Focus	
FY2017	0.0%	\$547.52	E&D/Rev.	0.00%	0.00%	0.0%	DCF Valuation	100%
FY2018	0.0%	\$547.52	SG&A/Rev.	15.36%	15.36%	0.0%	Relative valuation	0%
FY2019	1.0%	\$552.99	ROIC	47%	47.18%	0.00%	Distress Valuation	0%
FY2020	2.0%	\$564.05	EV/Rev.	2.23x	1.75x	-0.05x	Monte Carlo Simulation Assumptions	
FY2021	3.0%	\$580.97	EV/EBITDA	12.68x	10.83x	-0.19x	Revenue Growth deviation	Normal (0%, 1%)
FY2022	3.0%	\$598.40	Debt/Equity	42%	40%	-0.2%	Operating expense deviation	Normal (0%, 1%)
FY2023	3.0%	\$616.36	Unlevered beta	0.26	0.72	0.05	Continuing Period growth	Triangular (5.82%, 6%, 6.18%)
FY2024	3.0%	\$634.85	Dividends/REV	3%	2%	-0.1%	Country risk premium	Triangular (2.91%, 2.96559686919401%, 3.09%)
Continuing Period	3.0%	\$653.67					Intrinsic value σ(e)	\$0.16
							1-year target price σ(e)	\$0.17

Forecast Year		ROIC	WACC	Invested Capital	Implied Enterprise Value	Net Claims on Assets and Dilution Costs	Shares Outstanding	Price per Share	Monte Carlo Simulation Results
LTM	47.2%	4.2%	\$202.16	\$1,375.71	\$398.89	21.73	\$44.36		
FY2015	43.2%	5.0%	\$188.45	\$1,343.76	\$376.64	21.73	\$44.59		
FY2016	36.3%	5.4%	\$181.87	\$1,341.07	\$350.80	21.73	\$45.82	The 3σ(e)-adjusted intrinsic value is \$44.39; the 3σ(e)-adjusted target price is \$44.73; and the analysts' median target price is \$40.33	
FY2017	37.7%	5.7%	\$181.87	\$1,349.26	\$329.62	21.73	\$47.21		
FY2018	37.7%	6.0%	\$181.87	\$1,362.36	\$307.22	21.73	\$48.89		
FY2019	38.0%	6.4%	\$185.09	\$1,383.36	\$286.74	21.73	\$50.80		
FY2020	38.0%	6.7%	\$191.61	\$1,412.30	\$267.94	21.73	\$52.94		
FY2021	37.7%	7.0%	\$201.57	\$1,449.38	\$250.50	21.73	\$55.30		
FY2022	36.8%	7.4%	\$211.84	\$1,492.17	\$226.42	21.73	\$58.10		
FY2023	36.0%	7.7%	\$222.41	\$1,541.31	\$206.29	21.73	\$61.13		
FY2024	35.3%	8.0%	\$233.30	\$1,597.54	\$184.40	21.73	\$64.53		
Continuing Period	47.2%	8.0%	\$169.20						

Sensitivity Analysis
Revenue growth variations account for 95.9% of total variance
Risk premium's variations account for 0.8% of total variance
Operating expenses' variations account for 2.7% of total variance
Continuing period growth variations account for 3% of total variance