

March 29, 2019

Ferrellgas Partners LP (FGP)

Michael Bove



Sector: Utilities Industry: Gas Utilities Current Price: \$1.32

Target Price: \$0.36



SELL (SHORT)

Current Price: \$1.32 Target Price: \$0.36

Market Cap: \$128.24 Million

Beta: 1.558
ROIC/WACC: 0.49
Gross Profit Margin: 42.6%
EBITDA Margin: 12.2%
Net Income Margin: -4.2%

Company Description: Ferrellgas partners, L.P. is a gas utility company that primarily sells, distributes, and markets propane and other natural gas liquids. FGP serves residential, commercial, and industrial applications throughout the United States. FGP is the #2 largest propane retailer in the United States based on gallons sold.

Track Z Annotate News Zoom 4.00

3.50

55.00

55.00

48.00

FGP US Equity - Volume 0.165M

Apr May Jun Jul Agus Sep Oct Nov Dec Jan Feb Mar 2019





Thesis: Ferrellgas is in the midst of a difficult transition back to profitability after a failed experiment in midstream operations. Despite being the second largest propane retailer in the United States (by gallons delivered), Ferrellgas is burdened with an overwhelming debt load and their strategy of selling the underperforming midstream assets has been done at "fire-sale" prices. With other more successful propane retailers in the country, I believe that Ferrellgas will be unable to turnaround their financial issues and will instead be forced into bankruptcy. In addition to their financial difficulties, Ferrellgas saw their COO and CFO leave the company within the past year. Their CEO is also operating in an interim capacity since they have yet to find a replacement.

Catalysts:

- Short Term(within the year): Liquidity concerns
- Mid Term(1-2 years): Strong competition from regional retailers
- Long Term (3+ years): Solvency concerns as FGP faces difficulty paying back their long term debt.

Company History:

Ferrellgas got its start in 1939. Alfred Ferrell founded the company in Atchison, Kansas. The company sold gas heaters and, within a few years, sold bottled gas to customers. With business slowing in the 1950's, the company started to sell furniture and televisions. Years later, James Ferrell (the current chairman) would enter his family's business and begin a period of aggressive growth. Following years of acquiring small, independent propane retailers, Ferrell would purchase Buckeye Gas Products (a remnant of Standard Oil) for an estimated \$200 million. After completing the purchase, Ferrellgas would become one of the country's biggest propane retailers. In 2004, the company completed a merger with Blue Rhino. Blue Rhino was the nation's largest provider of portable propane tanks.



Ferrell's belief in aggressive growth through acquisitions would later lead to the company's current financial difficulties. In a stunning display of poor timing, Ferrellgas began to diversify their operations in the midstream business. Ferrellgas acquired Sable Environmental LLC, a fluid logistics provider for shale companies, in 2014 for roughly \$122 million. This was the start of the company's financial difficulties. Then, in June of 2015,



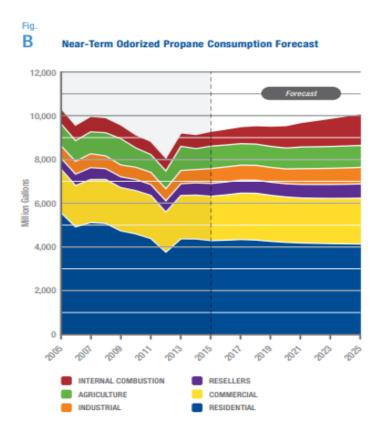


Ferrellgas purchased another midstream business (Bridger Logistics LLC) for around \$837 million. With the collapse in oil prices in late 2014, their midstream operations experienced substantial losses. Growing liquidity concerns forced the company to sell their midstream assets at "fire-sale" prices. Ferrellgas has not been profitable since 2015.

Propane Sector Outlook:

Propane is a relatively stable sector. The use of propane has several benefits over its main substitute of natural gas. Natural gas is not available in all parts of the country as our infrastructure prohibits the installation of gas lines from natural gas hubs to new houses that are not located in urban or dense suburban areas. In addition to this, some people prefer to own their own supply of propane (which is delivered to individual tanks) instead of relying on the constant flow of natural gas. A natural gas outage can be devastating, as users of natural gas do not have any control over their supply. With propane, users can monitor the supply in their tank and order fuel accordingly.

Additionally, the sale of propane is standard across the industry. Propane is propane. There is no way to specialize it or have a "better" propane. The only difference in the industry is a company's ability to reach customers, offer financing / price-protection plans, and possibly maintain or repair their propane and heating systems. Ferrellgas has no competitive advantage in the industry and their size is no longer an advantage for the company.



Propane is unlikely to increase in price because of production growth related to the expansion of hydrofracking in the United States. As such, relatively lower propane prices are expected to allow the propane industry to rebound marginally from previous declines in usage.





Q2 2019 Earnings Report:

On March 8th, 2019, Ferrellgas released their 2nd quarter earnings report. The company reported EPS of \$0.44 (which was a miss by \$0.16) and revenue of \$573.38M (which was down -24.07% Y/Y and a miss of \$97.63M expected by analysts).

Retail gallons were 2% higher than last year despite weather that was measured to be only 0.7% colder than last year. Propane margins were \$0.031 cents higher than the same quarter in the prior year. Second quarter EBITDA fell by \$0.9M to \$119.7M. Operating expenses rose from \$113.9M to \$121.2M and general/administrative expenses rose from \$13.8M to \$16.3M. Furthermore, the interest expense rose from \$42.7M to \$44.9M.

Despite the positive developments in margin and an increase in retail gallons, Ferrellgas' earnings report was a disappointment to investors. In the immediate aftermath of the release, the company's stock fell by 17%.



Key Financial Statistics:

Ferrellgas is in a challenging financial positon. They currently have debt worth \$2.2B while their market cap stands at just over \$125M. The company is heavily leveraged (which was a result of their use of leverage to enter into the midstream industry). As if this was not troubling enough, their revenue has been steadily declining since 2014. Interest expense in 2018 was \$168.5M compared to an operating income of \$125.0M. Their heavy debt load and the cost of the interest on their debt resulted in a loss of \$92.4M for 2018.

EPS and Net Income have been solidly negative since 2016, which is when the losses from their midstream division began to materialize and they were forced to sell assets for a loss and write down the value of the assets that they held. Although revenue is projected to grow again by 2020, their net profitability is not projected to recover within the same period.

Additionally, Ferrellgas turned cash flow negative in the 4th quarter of 2018 and their cash burn has dramatically increased since then. With no more midstream assets to sell, they might need to liquidate their core propane assets to save the company.





Because of their liquidity crisis, Ferrellgas was forced to suspend their quarterly cash distributions to shareholders. This measure was implemented because of restrictions placed on the company's financial operations by debt holders.

In Millions of USD	2015 Y	2016 Y	2017 Y	2018 Y	Current/LTM	2019 Y Est	2020 Y Est
12 Months Ending	07/31/2015	07/31/2016	07/31/2017	07/31/2018	01/31/2019	07/31/2019	07/31/2020
Market Capitalization	2,093.9	1,928.7	437.2	307.0	128.2	07/31/2017	07/31/2020
- Cash & Equivalents	7.7	5.0	5.8	119.3	40.6		
i — i							
+ Preferred & Other	4.0	-4.7	-3.9	-6.7	-7.2		
+ Total Debt	1,923.4	2,106.6	2,124.6	2,169.4	2,223.0		
Enterprise Value	4,013.5	4,025.6	2,552.1	2,350.4	2,303.5		
Id Revenue, Adj	2,024.4	2,039.4	1,930.3	2,073.1	1,789.0	1,772.5	1,853.5
☐ Growth %, YoY	-15.9	0.7	-5.3	7.4	-18.0	-14.5	4.6
Gross Profit, Adj	799.9	877 . 5	739.4	775.5	761.4	763.8	794.9
Margin %	39.5	43.0	38.3	37.4	42.6	43.1	42.9
LII EBITDA, Adj	246.3	306.7	215.1	226.8	218.5	234.7	246.0
<u>ы</u> Margin %	12.2	15.0	11.1	10.9	12.2	13.2	13.3
Net Income, Adj Net Income, Adj	40.5	-199.0	-45.2	-92.4	-75.3	-46.1	-33.0
<u>ա</u> l Margin %	2.0	-9.8	-2.3	-4.5	-4.2	-2.6	-1.8
EPS, Adj	0.48	-2.02	-0.47	-0.95	-0.78	-0.47	-0.34
Growth %, YoY	-38.3		77.0	-104.3	-31.7	50.2	28.8
Lash from Operations	203.1	194.3	127.3	74.1	55.3		
LII Capital Expenditures	-72.5	-117.5	-50.5	-84.9	-107.6	-120.0	-35.0
Free Cash Flow	130.6	76. 8	76 . 8	-10.8	-52.2		
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Competitors:

One of the key components of my thesis for Ferrellgas being unable to recover from their operational missteps is the strong competition in the industry. Suburban Propane Partners (SPH) and Amerigas Partners (APU) are both substantially better propane retailers than Ferrellgas. Across the board, Suburban and Amerigas are better than Ferrellgas in terms of sales growth, gross margin, operating margin, pre-tax margin, return on assets, and return on equity. In addition, Suburban and Amerigas have much better capital structures (less leverage) and consistent profitability.

Name	Sales Growth	Gross	0perating	Pre-Tax	Return on	Return on	Return on
(BICS Best Fit)	(%)	Margin (%)	Margin (%)	Margin (%)	Assets (%)	Equity	Capital (%)
						(%)	
Median	12.89%	55.90%	15.21%	10.95%	3.56%	10.83%	6.15%
100) FERRELLGAS PARTNER	7.40%	37.41%	6.03%	-1.99%	-5.04%		4.51%
101) SUBURBAN PROPANE	13.18%	55.90%	11.74%	5.98%	3.56%	15.00%	
102) AMERIGAS PARTNERS	15.06%	53.43%	15.01%	9.24%	6.62%	29.27%	12.37%

In addition to the fierce competition of these nationwide retailers, there are a number of regional propane retailers that will prevent Ferrellgas from regaining profitability. These regional players have less overhead and more flexibility than the national players when it comes to pricing and ability to deliver. Ferrellgas experienced this dilemma during the end of 2017 and beginning of 2018 when they were unable to service their customers, which resulted in their customers running out of propane. Although fuel runouts are fairly common during prolonged periods of cold weather, Ferrellgas was unable to secure additional fuel which caused scores of complaints from their customers. The severity of their supply situation was so bad that the New York State





Attorney General began investigating the company. This will seriously harm their public image and make it more challenging for the company to acquire new customers.

Management and Ownership:

Ferrellgas was not always the poorly run company that they are today. Prior to the disastrous move into the midstream sector, Ferrellgas was a solidly profitable company with strong EBITDA and strong profitability for most of the years leading up to 2015. Jim Ferrell, the chairman of the company and interim CEO since the end of 2016, was once considered a pioneer in the industry. He served as the past president of the World LP Gas Association and a former chairman of the Propane Vehicle Council. He is quite experienced in the propane industry.

However, this knowledge did not prevent him from stopping the move into the midstream sector. This move was made by the former CEO of FerrellGas (Steve Wambold). Doran Schwartz (former CFO) and Trent Hampton (former COO) both stepped down from their positions in late 2018. The CFO and COO position have since been replaced by company insiders but their CEO still serves in an interim positon. I believe that the new management team will have substantial difficulty in fixing the company this far into their financial difficulties.

In terms of company ownership, individuals, hedge funds, pension funds, banks, and other investors have fled the stock since the beginning of the year. Investment advisors and brokerages have been the only types of investors to boost their stake in the company.

54) Ownership Type	12/30/18	Curr	Change
41) Other	69.49	65.87	-3.62 🗠
42) Individual	15.67	14.85	-0.82 🗠
43) Investment Advisor	10.31	13.42	+3.11
44) Brokerage	1.08	3.68	+2.60
45) Hedge Fund Manager	2.26	1.2	-1.06 🗠
46) Pension Fund	0.71	0.62	-0.09 🗠
47) Bank	0.45	0.33	-0.12
48) Insurance Company	0.03	0.03	0.00

Possible Bull Case:

Industry insiders speculate that Ferrellgas could be an acquisition target because of their sheer scale. As previously mentioned they are the 2^{nd} biggest propane retailer by gallons delivered. These insiders speculate that the company is "too big to fail" and that they will be taken over by rival propane companies because of their number of customers and gallons delivered.





I believe this is a flawed assumption for a few reasons:

Their debt is too big relative to the value of the company and this will hinder any acquisition of the company.

In Millions of USD	2015 Y	2016 Y	2017 Y	2018 Y	Current/LTM
12 Months Ending	07/31/2015	07/31/2016	07/31/2017	07/31/2018	01/31/2019
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+ Total Debt	1,923.4	2,106.6	2,124.6	2,169.4	2,223.0
III Enterprise Value	4,013.5	4,025.6	2,552.1	2,350.4	2,303.5

As we can see from the statistics above, Ferrellgas has a market capitalization of around \$130 million relative to an enterprise value of over \$2.3 billion. Their massive debt load is going to prevent any other propane retailer from wanting to purchase the company and incur their massive liabilities. Although the company has sold off their midstream assets, they are still dealing with the massive debt load incurred from their entrance into the sector. Rising interest rates have hurt the company as they try to pay down debt and interest rates are not expected to go lower in the near future.

Conclusion:

Ferrellgas was once a strong industry leader in the propane sector. Under the direction of a visionary, the company was solidly profitable and a fierce competitor. However, one poor decision to enter the midstream business has cost the company a substantial amount of value.

Their financials are weak as revenue is forecasted to decline while their debt and interest expense are steadily increasing. The company has not been profitable since 2015 (as a result of their midstream operations) and they were forced to sell these assets at a very low valuation.

With an enormous debt load, no forecasted profitability within the next few years, and a free cash flow that is negative and degrading, this former propane titan will continue to suffer in the near term and almost certainly be bankrupt within the next few years. Any possible buyers of the firm will stay away due to their liabilities and inability to prove a unique selling proposition to customers.





CENTER FOR GLC	R GLOBAL FINANCIAL STUDIES			F <i>G</i> P			Thursday, March 28, 2019 Pa			
errellgas Partners, L.P.			Symbol: FGP	Fin	ancials					
nalyst		,	Michael Bove	Pro	fitability		FGP (LTM)	FGP Historical	Peers' Median (LTM)	
y below		d	50.30	Ret	turn on Capital		-0.2%	4.35%	6.01%	
ell above		4	51,27	Ad	justed EBITDA Marg	in	3.1%	3.48%	20.53%	
robability of Price Incre	ease	7	%	Ret	turn on Equity		22.7%	11.9%	9.2%	
ast Price		5	51.31	Ad	justed Net margin		-11.9%	1.1%	5.1%	
ntrinsic Value		5	51.06		ested Funds		FGP (LTM)	FGP Historical	Peers' Median (LTM)	
arget Dividends			50.00		sh/Capital		7.5%	0.4%	0.2%	
arget Price			60.36		/C/Capital		4.6%	3.9%	0,3%	
3 -1 1 1 1 2 2					erating Assets/Capit	al	67.0%	78.2%	57.3%	
uarterly Earning Surprise	as (Actual Vs. Madian	Ectimates)		_	odwill/Capital	u1	20.8%	16.6%	35.2%	
	es (Actual Vs. Median	Carmares)			·		FGP (LTM)	FGP Historical		
evenue			. 00%		oital Structure				Peers' Median (LTM)	
31/2018			7.82%		tal Debt/Market Cap		20.30	1.09	0.56	
/30/2018			15,35%	-	oorted Cost of Borro	-	7.8%		4.9%	
/31/2018			4.54%		sh Interest/Total De	b†	7.4%		4.7%	
0/31/2018			0.46%		FS Credit Rating		F		ВВ	
31/2019		=	<u>14.55%</u>	Cre	edit Model Rating		Ь		bbb-	
ean (Standard Error)			5.23% (0.97%)	Pro	bability of Default		4.95%		0.12%	
BITDA				Cos	st of Capital					
/31/2018		-	41,11%				CGFS Credit Rating	Credit Model Rating	Probability of Default	
/30/2018			49.90%	Im	olied Cost of Borrow	ing (FGP)	14.2%	7.7%	9.4%	
/31/2018			267.75%		olied Cost of Borrow	=	5.4%	5.7%	5.7%	
0/31/2018			223,36%		st of New Debt Estim		7.0%			
/31/2019			43.49%		rket Risk Premium Es		6.0%			
lean (Standard Error)			5.23% (45.54%)		st of Equity Estimate	iiii Lii	13.0%			
nean (Standard Error)		1	5.23% (45.54%)		ACC Estimate		5.2%			
/-l				***	ice Esimple		3.270			
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OCF Valuation										
or valuation	Revenues	EBITDA Margin	UFCF	WACC	ROIC	Price Per Sl	nare	Ctati-ta	Association Annalysis	
ase Year (Actual)	\$1,789.02	3%	\$143.54	6.00%	-0.20%	\$1.16		Sensitivity /	Attribution Analysis	
ear 1	\$1,646.73	13% 13%	\$141.68	5.22% 5.05%	9.47% 9.93%	\$0.46 \$0.00				
ear 2 ear 3	\$1,722.60 \$1,695.42	14%	\$125.42 \$204.10	5.09%	14.63%	\$0.00		Revenue	73.5%	
ear 4	\$1,673.99	14%	\$194.67	5.12%	13.96%	\$0.00				
ear 5	\$1,658.07	13%	\$184.93	5.11%	13,33%	\$0.00				
ear 6 ear 7	\$1,647.52	13%	\$174.93	5.08%						
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ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 ontinuing Period elative Valuation ultiple eedian (Peers) ase	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM)	13% 13% 12% 12% 12% 12% 11% 11% 11% EV/EBITDA (FW 9.5× EBITDA (NTM)	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 T) P/BV (TTM) 2.7× Book Value (LTM)	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTA)	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital () Intangibles	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 10 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 ontinuing Period elative Valuation ultiple edian (Peers) ese	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9× Revenue (NTM) \$1,658.37	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% EV/EBITDA (FW 9.5× EBITDA (NTM) \$219.69	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7x	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW)	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 eartinating Period elative Valuation ultiple edian (Peers) ese	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9× Revenue (NTM) \$1,658.37 \$3,231.95	13% 13% 12% 12% 12% 12% 11% 11% 11% EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 T) P/BV (TTM) 2.7× Book Value (LTM)	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTA)	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital () Intangibles	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 eartinum Period elative Valuation ultiple edian (Peers) ase SP mplied EV otal Net Claims mplied EQ	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9× Revenue (NTM) \$1,658.37	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% EV/EBITDA (FW 9.5× EBITDA (NTM) \$219.69	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 T) P/BV (TTM) 2.7× Book Value (LTM)	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTA)	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital () Intangibles	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
car 8 car 9 car 10 car 11 car 12 car 13 car 14 car 15 continuing Period elative Valuation ultiple edian (Peers) ase	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 11% 11% 11% EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06 \$2,391.33 -\$302.27	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 Y) P/BV (TTM) 2.7× Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM) \$0.00	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital (1) Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,188.98 \$361.04 \$2,120.18		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 9 ear 10 ear 10 ear 11 ear 12 ear 13 ear 15 ontinuing Period elative Valuation ultiple edian (Peers) esse SP mplied EV otal Net Claims mplied EQ aluation Summary odel	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06 \$2,391.33 -\$302.27	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7× Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM \$0.00	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital () Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$1.00 \$2.188.98 \$361.04 \$2,120.18		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 eartinum Period eletive Valuation ultiple edian (Peers) ase GP pupiled EV oral Net Claims uplied EQ aluation Summary odel CF Valuation	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 12% 11% 11% 11% 11% 2EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06 \$2,391.33 -\$302.27 usic Value \$1.16	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7× Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM \$0.00 \$0.00	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital (1) Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,188.98 \$361.04 \$2,120.18		CAPEX 0.2% Discount Rate 12.1%	utionProbability (Upside)=7	
ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 ontinuing Period elative Valuation bultiple ledian (Peers) asse GP mplied EV otal Net Claims mplied EQ aluation Summary lodel CF Valuation V/Rev (FW)	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06 \$2,391.33 -\$302.27	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7x Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM \$0.00	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital 1) Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2.188.98 \$361.04 \$2,120.18		Discount Rate 12.1% Intrinsic Value Distribu		
ear 8 ear 9 ear 10 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 ontinuing Period elative Valuation tultiple tedian (Peers) ass GP mplied EV ortal Net Claims mplied EQ aluation Summary todel CF Valuation V/Rev (FW) V/FBITDA (FW) /BV (TTM)	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,792.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9x Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% 11% 11	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7× Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM \$0.00 \$0.00 \$0.46 69.10 \$3.27 50.00	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital (1) Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,188.98 \$361.04 \$2,120.18 \$2,120.18		Discount Rate 12.1% Intrinsic Value Distribu		
ear 8 ear 9 ear 10 ear 11 ear 12 ear 13 ear 14 ear 15 ontinuing Period elative Valuation	\$1,642.04 \$1,647.03 \$1,657.21 \$1,672.65 \$1,693.48 \$1,719.88 \$1,752.09 \$1,790.39 \$1,835.15 EV/Rev (FW) 1.9× Revenue (NTM) \$1,658.37 \$3,231.95 \$2,391.33 \$840.62	13% 13% 12% 12% 12% 12% 11% 11% 11% 11% EV/EBITDA (FW 9.5x EBITDA (NTM) \$219.69 \$2,089.06 \$2,391.33 -\$302.27 sic Value \$1.16 \$8.65 \$3.11	\$164.73 \$154.64 \$144.39 \$133.63 \$122.24 \$110.09 \$97.57 \$84.62 \$67.55 -\$2.49 P/BV (TTM) 2.7x Book Value (LTM) \$0.00	5.02% 4.93% 4.80% 4.63% 4.42% 4.16% 3.85% 3.47% 3.02% 2.31% P/E (FW) 19.1x Net Income (NTM \$0.00 \$0.00 \$0.00 \$0.46 99.10 \$3.27	12.15% 11.52% 10.82% 10.06% 9.25% 8.38% 7.47% 6.52% 5.26% 2.31% Asset Based V Recovery Rate Capital U Intangibles Claims	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,188.98 \$361.04 \$2,120.18 \$2,120.18		Discount Rate 12.1% Intrinsic Value Distribu	\$100 (Upside)=7 \$118 \$150 \$150 \$151 \$172 \$183 \$183	