Aspen Technology
NASDAQ: AZPN
Recommendation: BUY

Company Data

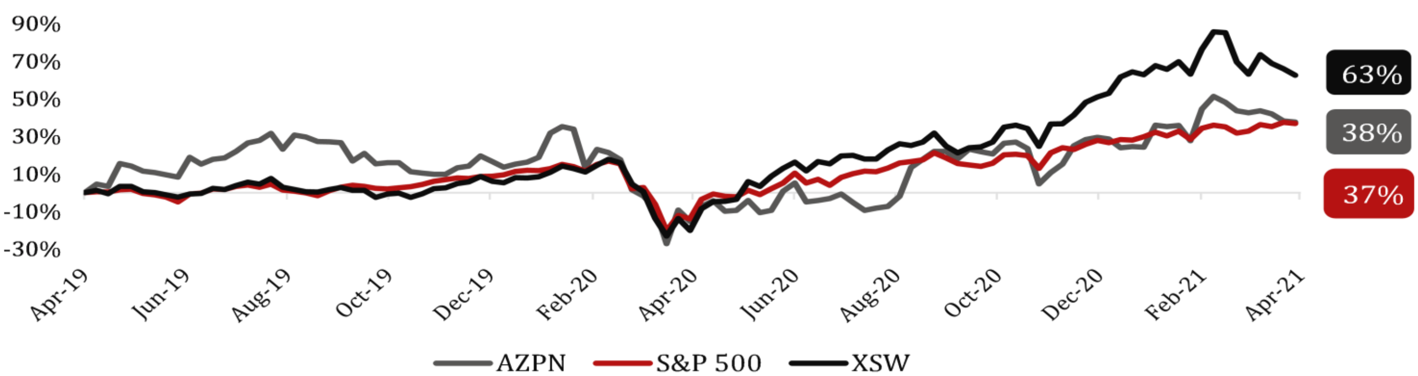
Price	$143.55
Market Cap	$9.79B
P/E	32.31x
EV/EBITDA	36.00x
Price Target	$161.78
Upside	12.7%

Investment Thesis

We recommend a long position on Aspen Technology with a price target of $161.78. The company provides software products and services to capital-intensive industries, including energy, engineering and construction, and chemicals.

We believe that Aspen Technology's long-term outlook is positive and that its current valuation makes an optimal entry point for future investment. Aspen's focusses and grip on its core verticals provide it a niche position to penetrate their existing customer and continue to grow the ecosystem they have established. Due to their long experience and strong technical capabilities, Aspen will target and successfully move into other areas and transform them the way they have with energy. Furthermore, Aspen has a competitive advantage against other companies that may try to move in as they do not have nearly the same capabilities and are not as specialized.

Two-Year Performance



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Company Overview

Aspen Technology was initially founded as a computer-automated chemical manufacturing service provider, which has turned into 40+ years of experience working in this space. The company now provides software and services to companies generally focused on capital-intensive industries, including energy, engineering and construction, and chemical manufacturing. Aspen's products are designed using the latest technology, including Artificial Intelligence (AI) and Machine Learning, with expected trends in mind, including the cloud and the Internet of Things (IoT).

Almileno Situmorang
Jared Pillard

April 1, 2021

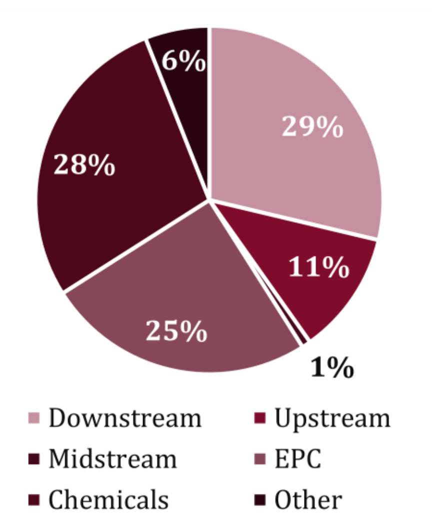
Aspen's customers use its products to optimize the conceptualization and design of plants, operations and supply chain management, and lastly, the overall maintenance of these plants. These products help companies improve margins, make processes more efficient, and allow them to adapt to changing conditions and environments successfully. These products can add value to these companies because it is much more cost-effective to buy these products' licenses rather than pay much more for the experts in these fields. Furthermore, when plants and processes are computerized and self-automated (AI allows them to learn on their own), processes are much more accurate and reliable, which saves money not only in the processes themselves but also in decisions the company makes.

More than 2400 customers use Aspen's products in more than 30 countries from around the world. Their revenue is broken down into three main parts: Licenses, Maintenance, and Services and Other. Aspens licenses generally last 5-6 years and are purchased after companies try a 4-6-week pilot period with these products. Aspens also collect revenue from their licenses yearly (not all upfront) which creates recurring revenue. Furthermore, they begin working with customers 18-24 months in advance of the renewal period to make sure that customers are not only getting their full value from the software but to see what other Aspen products they can use.

End Market Overview

Aspen's 2400 global customers for their plant optimization solutions include the top 20 largest Engineering & Construction companies, the top 20 largest Oil & Gas companies, 19 out of the top 20 largest petrochemical companies, 20 largest chemical companies, and 16 out of the top 20 largest pharma companies. On top of that, customers in these specific industries are fairly sticky due to the nature of the multi-year contract business model that AspenTech implements and the high switching costs that comes with it. About 41% of Aspen's end markets are in the energy industry, and the rest mainly operates in the chemicals, engineering, procurement, and construction industries.

Customers by Industry

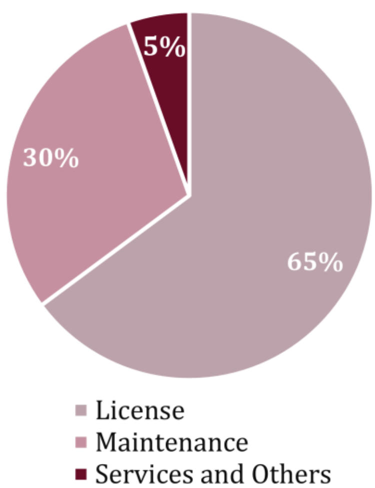


Although AZPN's customers operate in different markets, they all have similar long-term and short-term goals: to cut costs, increase efficiency, reduce carbon footprint, and transition to more sustainable and environmentally friendly operations all at the same time. The Oil & Gas industry is making its way to sustainable energy, with some of the largest companies such as British Petroleum and Shell strengthening their net-zero emission goals by targeting reducing oil and gas production or investments by up to 40% over the next decade. These companies aim to gradually divest out of legacy energy business to more sustainable options without sacrificing market share and profitability, and Aspen's solutions can enable them to do just that.

Finally, some outside forces such as government regulation are also shaping where the energy market is heading in the next four years. Joe Biden's administration has decided to have the United States back on the Paris Climate Agreement, which the Trump administration previously criticized. This decision paints color on the current administration's stance on transitioning to clean energy and possibly tightening some oil and gas production regulations. A possible policy could include methane restrictions from O&G facilities, fuel-economy standards, and investment in building a nationwide, integrated zero-carbon value chain and infrastructure.

Unique Position in Energy

Revenue by Segment



Roughly 40% of Aspen's revenue comes from customers in the energy industry, including companies from oil/gas producers to companies who make products from petrochemical manufacturing. The industry is changing as countries and society move to reduce carbon emissions and use cleaner energy sources. Aspen can capitalize on the current conditions in the industry and where the trends are pushing it.

Producing energy from fossil fuels is capital intensive, and the change to clean energy makes prices for oil and gas more volatile as demand declines. Aspen's technology allows companies to deal with both. With their technology, producers can streamline processes, create more value from their wells, and spend less producing them. With the industry's volatility, Aspens technology will allow companies to more efficiently and effectively control output to keep in line with the markets. The more efficient output provides the company with better flexibility and opportunity. The Industrial use of Natural Gas is expected to grow 35% between now and 2050, and volatility of the market is expected to increase by 60% alone in the US.

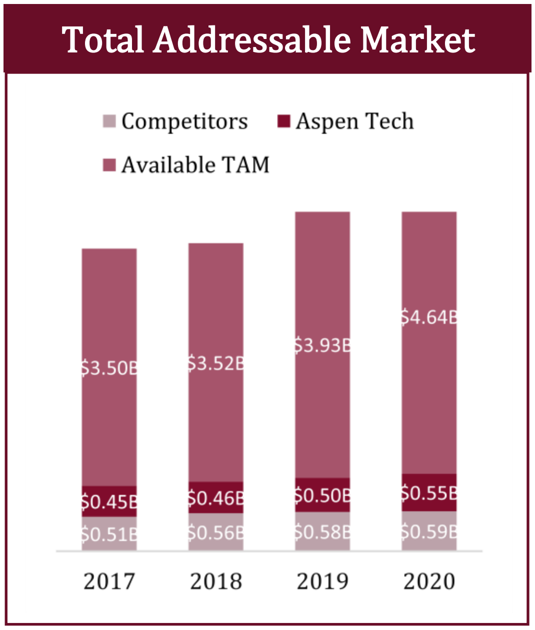
Due to the nature of Aspen's products, they can also be leveraged in clean energy production. Aspens products are being looked at for use in the hydrogen economy by several customers, and their software can also be used in the production of other compounds and renewable fuels, the same as used in gas and oil production.

Lastly, it is essential to address regulation in the industry. Unlike the customers, its services, restrictions, and crackdown on energy producers are good for Aspen (the current Administration in Washington is favorable) because it forces customers to rely on Aspen to help them stay in line with the goals and regulations put before them. Aspen's customers should also utilize their technology because it helps make them more attractive to investors (ESG is a growing trend) when working to reduce emissions and make themselves more profitable in the process. The European Union has a goal to reduce Carbon waste by 55% before 2030 (based on 1990 levels), and in one pilot program in Europe, Aspen's technology reduced Carbon waste by nearly 15% for the company.

Defensible Business Model

As a software company that mainly serves the oil and gas, petrochemicals, engineering, and construction industries, AspenTech doesn't have a close competitor. The company identifies itself as an Industrial Artificial Intelligence company that combines Data Science and AI with Software and industry-specific knowledge to deliver the Self-Optimizing Plant of the future for capital-intensive industries. In short, it combines every aspect of machine learning, software at scale, and domain expertise and delivering its service purely from a Software-as-a-Service model.

Aspen delivers value to their clients in various ways: through working with the company, Dow Chemical Co. has achieved $700 million in cumulative benefits over nine years while increasing energy efficiency improvement by 9% across 15 global sites as well as reduced emissions by 80%. Another significant client, Abu Dhabi National Oil Company, used AZPN's services to increase visibility and transparency across the entire Shah gas fields to ensure that each worker understands the daily sustainable implications of their operations, which lead to a decrease in hydrocarbon losses and energy use by 10%. These are just a few examples of what AZPN's products can achieve, and clients are willing to pay big money to achieve their goals. Keep in mind that this company's services are all through software that carries a relatively low cost of capital. Due to the high value add and low-cost nature of Aspen's business model, they can produce a 90% Gross Margin and an EBITDA Margin: 53%, which is higher than the average SaaS companies.



The Digital Transformation

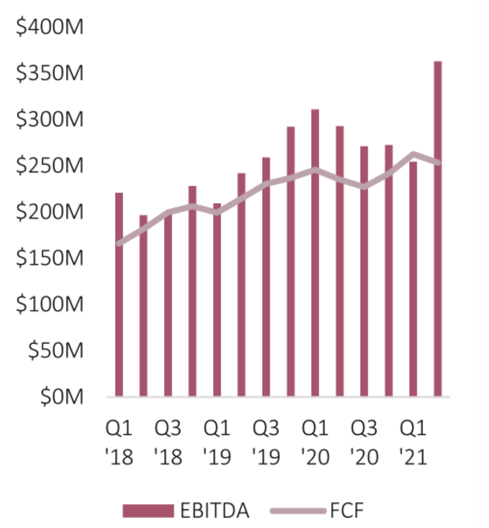
Digital Transformation is the adoption of digital technology to transform services or businesses by replacing outdated technology with more modern components. The entire Global Industrial AI market is expected to reach $72.5B in 2025, and Aspen has a projected TAM based on their areas of focus of $4.64B, with Aspen currently at $.55B. Other areas like eCommerce, mobile platforms, semiconductors, phones, computers, etc., have all had their moments in the last few years. We believe that more capital-intensive, heavy industrial areas are also going to begin updating their plants and processes and taking advantage of the technology that has come to exist in our world. Aspen has set its sights on two of these industries: Pharmaceuticals and Mining.

Aspen has been able to carve out a niche for itself in energy because they focus on working in every aspect of their core verticals and ecosystems. In Pharmaceuticals, Aspen's products will be used to improve the accuracy and reliability of the drugs these companies manufacture. The reduced cost and faster time to make these drugs saves these companies money and saves lives. In drug trials: niche drugs lose $600K per day when delayed in trials, and Blockbuster drugs lose $8M per day when delayed in trials.

In Mining, Aspen's technology is looking at being utilized by companies to handle better the fast-moving market and economic conditions that impact the industry to make more informed production decisions. Aspen's technology can also improve companies' decisions on where and how to mine and allow them to pull these minerals out of the ground more efficiently.

With 40 years of experience, the right experts in their respective fields, and the necessary technology, Aspen has created a one-of-a-kind product and produces another one. Aspen's Hybrid Model allows customers to solve complex problems or models that generally would not be able to be solved. Aspen is taking this model (which is currently in their product) and is using it to hopefully create fully autonomous plants and processes, which is referred to as the Self-Optimizing Plant. While the Self-Optimizing Plant will be realized in the next few years, it shows how advanced and capable the company is, and Aspen's track record will allow them to be successful.

Commitment to Shareholders



Catalysts

The company has a commitment to return value to its shareholders and has been consistently doing so in the last five years. The company's management guided a $200 million stock buyback program that should commence in the fiscal year 2021, which has a high chance of going through considering the positive outlook that the company has on the rebound of annual customer spend numbers. This stock buyback program would reflect very well the company's share price.

In the Q&A section of the latest earnings call, management was asked whether the change in government regulations on some of their client's industries will have a negative impact on AspenTech's earnings. Management replied that no matter what happens, the global economy is already pointing towards eco-friendly energy production and that a tight regulation in oil and gas would be favorable for the company.

Finally, the company plans to expand its business organically and inorganically, shown by its M&A track record of buying three companies in the last two years. These acquisitions are mainly made to keep AZPN's technology up to date and find applications in different industries.

Comps Table

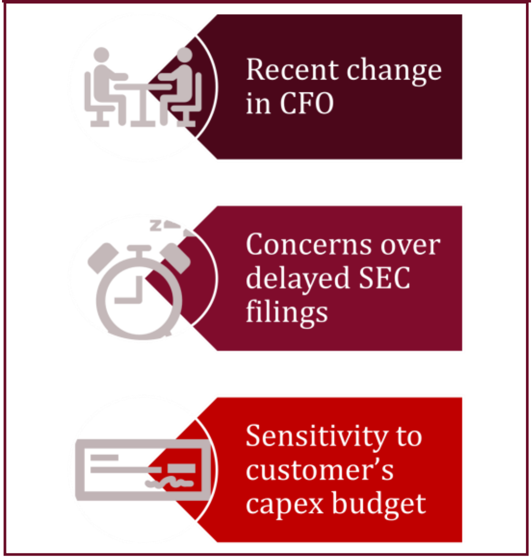
Ticker	Name	Mkt Cap	P/E	EV/EBITDA	OPM	Gross Margin	ROIC	Net Debt/EBITDA LF	FCF T12M
AZPN	Aspen Technology	10.10	33.31	29.54	63.95%	89.71%	26.61%	0.34	253.54M
Tier 1	Software Optimization Products								
EMR	Emerson	53.10	24.70	20.27	14.49%	41.76%	13.92%	1.47	2.9B
ROK	Rockwell	30.00	30.99	27.80	17.37%	41.00%	23.15%	1.31	1.1B
PTC	PTC	15.15	79.01	54.02	21.06%	77.08%	6.62%	2.06	0.3B
AZPN	Aspen Technology	10.1	33.31	29.54	63.95%	89.71%	26.61%	0.34	253.54M
Median		22.58	32.15	28.67	19.22%	59.42%	18.54%	1.39	1.1B
Mean		27.09	42.00	32.91	29.22%	62.39%	17.58%	1.295	1.5B
Tier 2	Intelligent Software Products								
ALTR	Altair Engineers	4.58	-	404.97	5.49%	74.19%	-0.67%	0.35	0.3B
ADSK	Autodesk	57.42	109.63	89.59	17.74%	91.12%	52.76%	0.3	1.4B
RP	Realpage	8.92	145.40	78.17	9.19%	56.90%	3.30%	2.81	0.2B
ANSS	Ansys	23.13	63.42	54.60	41.59%	86.71%	9.38%	0.05	0.5B
AZPN	Aspen Technology	10.1	33.31	29.54	63.95%	89.71%	26.61%	0.34	253.54M
Median		10.10	86.53	78.17	17.74%	86.71%	9.38%	0.34	0.4B
Mean		20.83	87.94	131.37	27.59%	79.73%	18.28%	0.77	0.6B
Overall									
AZPN	Aspen Technology	10.1	33.31	29.54	63.95%	89.71%	26.61%	0.34	253.54M
Median		19.14	63.42	54.31	17.56%	75.64%	11.65%	0.83	0.4B
Mean		25.30	69.49	94.87	23.86%	69.81%	16.88%	1.09	0.9B

Description of Comps Table

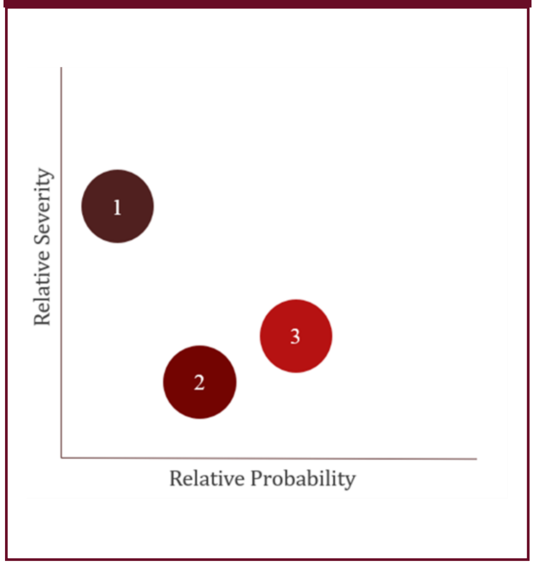
One of Aspen's most important aspects is that it does not have any direct competitors regarding capability and where its products are used. There are several reasons it has been successful. First, the company was initially founded by chemistry experts and those in related fields and is still run that way today. It is easy for tech companies to make all this great software and services, but without the specific knowledge of how this can be applied in chemical processes and other related industries, it is useless. Furthermore, Aspen also has engineers and experts in their fields who can go to plants as needed, which other companies may not have or can. This moves into the second reason: companies with similar products are more focused on industries like capital goods, semiconductors, automotive production, and eCommerce. No one seems to have tried to take on Aspen in its areas and frankly would not be able to overhaul their products or buy the necessary experts and knowledge.

In terms of valuation comparison, Aspen certainly stands out in terms of margins. It beats every other company across the board and will continue to this successfully. While several companies appear to trade close to Aspen, these companies, again, provide different products and services for various applications and industries. The tier one comps are companies that are focused on supply chain management and general plant operations. The second-tier comps are software and service-related companies with specialized products that could be relevant to industrial use.

Risks



Weighted Risk Analysis



Risks

The company recently announced its current CFO, Karl Johnsen, whom Chantelle Breithaupt will replace in the upcoming summer. Karl projected a relatively bullish model of a 12% CAGR in annual customer spend from 2021 to 2025, reflecting a total of $1B in annual customer spend in FY2025. If the new CFO isn't adhering to Karl's goals, this could drive investor sentiment one way or another.

AZPN experienced some delay in filing their FY2020 10K, mainly due to the change in revenue recognition required back in 2018. The ASC 606 standard made it a bit more complicated and time-consuming to identify and value AZPN's contracts, leading to the delay. Investors were a little startled with the delay citing possible misconduct, but was cleared up by management during the most recent earnings call.

Finally, due to AZPN's concentrated customer base within the energy industry, there is always a possibility of a late payment from one of their energy customers if they decide to cut the CapEx budget. If this happens, it could reflect negatively on Aspen's future earnings.

Valuation

Free Cash Flow Build	2017A	2018A	2019A	2020A	2021E	2022E	2023E	2024E	2025E
EBIT	206	208	281	257	373	397	414	424	430
Income Tax Expense	58	(55)	40	50	71	111	116	119	120
EBIAT	148	263	241	208	302	286	298	305	310
Add: Depreciation and Amortization	6	6	8	9	10	11	10	10	10
Less: Change in working capital	0	262	46	19	33	(3)	4	4	(0)
Less: Capital Expenditures	3	0	0	1	1	2	2	2	2
Unlevered Free Cash Flow	151	7	202	197	278	297	302	311	318
Time until cash flow					0.25	1.25	2.25	3.24	4.24
Present value of FCF					271	260	237	220	202

Exit Multiple Approach	
Terminal year EBITDA	440
Terminal value EBITDA multiple	36.00x
Terminal value	15,853
Present value of terminal value	10,075
Present value of stage 1 cash flows	1,190
Enterprise value	**11,265**

Valuation	
Enterprise Value	11,265
Less: Net Debt	103
Equity Value	11,163
Diluted Shares Outstanding	69
Equity Value Per Share	**$161.78**
Implied Upside	12.7%

WACC	
Beta	1.36
Risk Free Rate	1.7%
ERM	9.0%
Market Value of Equity	9,738
Weight of Equity	97%
Cost of Equity	**11.6%**
WA Interest rate	1.6%
Tax Rate	18.0%
Value of Debt	320.0
Weight of Debt	3.2%
Cost of Debt	**1.3%**
Calculated WACC	**11.3%**
Bloomberg WACC	10.9%

		EV/EBITDA Multiple												
		30.0x	31.0x	32.0x	33.0x	34.0x	35.0x	36.0x	37.0x	38.0x	39.0x	40.0x	41.0x	42.0x
WACC	9.3%	3%	6%	9%	12%	15%	18%	21%	24%	27%	30%	34%	37%	40%
	9.8%	1%	4%	7%	10%	13%	16%	19%	22%	25%	28%	31%	34%	37%
	10.3%	-1%	2%	5%	8%	11%	14%	17%	20%	23%	26%	29%	32%	35%
	10.8%	-3%	0%	3%	6%	9%	12%	15%	18%	21%	23%	26%	29%	32%
	11.3%	-4%	-1%	1%	4%	7%	10%	13%	16%	18%	21%	24%	27%	30%
	11.8%	-6%	-3%	0%	2%	5%	8%	11%	13%	16%	19%	22%	25%	27%
	12.3%	-8%	-5%	-2%	1%	3%	6%	9%	11%	14%	17%	20%	22%	25%
	12.8%	-9%	-7%	-4%	-1%	1%	4%	7%	9%	12%	15%	17%	20%	23%
	13.3%	-11%	-8%	-6%	-3%	0%	2%	5%	7%	10%	13%	15%	18%	21%

		EV/EBITDA Multiple												
		30.0x	31.0x	32.0x	33.0x	34.0x	35.0x	36.0x	37.0x	38.0x	39.0x	40.0x	41.0x	42.0x
WACC	9.3%	$147.85	$152.23	$156.61	$161.00	$165.38	$169.76	$174.14	$178.52	$182.90	$187.28	$191.66	$196.04	$200.42
	9.8%	$145.16	$149.46	$153.75	$158.05	$162.34	$166.64	$170.94	$175.23	$179.53	$183.83	$188.12	$192.42	$196.71
	10.3%	$142.53	$146.74	$150.95	$155.17	$159.38	$163.60	$167.81	$172.03	$176.24	$180.45	$184.67	$188.88	$193.10
	10.8%	$139.95	$144.09	$148.22	$152.36	$156.49	$160.63	$164.76	$168.89	$173.03	$177.16	$181.30	$185.43	$189.56
	11.3%	$137.44	$141.50	$145.55	$149.61	$153.67	$157.72	$161.78	$165.83	$169.89	$173.94	$178.00	$182.06	$186.11
	11.8%	$134.99	$138.97	$142.95	$146.93	$150.91	$154.88	$158.86	$162.84	$166.82	$170.80	$174.78	$178.76	$182.74
	12.3%	$132.59	$136.49	$140.40	$144.30	$148.21	$152.11	$156.02	$159.92	$163.83	$167.73	$171.64	$175.54	$179.45
	12.8%	$130.24	$134.08	$137.91	$141.74	$145.57	$149.40	$153.24	$157.07	$160.90	$164.73	$168.56	$172.39	$176.23
	13.3%	$127.95	$131.71	$135.47	$139.24	$143.00	$146.76	$150.52	$154.28	$158.04	$161.80	$165.56	$169.32	$173.08

Model Comments

Revenue Guidance and projects were given by management in their Q2 2021 earnings call. We stayed on the lower end on managements guidance. The tax rate button was coded based on historical tax rates and what was referenced in the 10K and is why it seems extremely low. However we also included the possibility that this company falls under the Biden Administrations plan to increase corporate taxes to 28%.