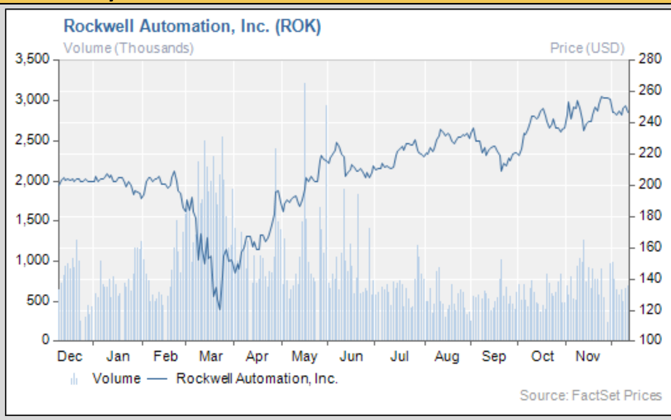
Industrials

Rockwell Automation

Recommendation: SELL				
Current Price	**$246.72**	---	Ticker	ROK
1 Year Bear	$136	*-45%*	Sh. Out. (M)	116.2
1 Year Base	**$187**	***-24%***	M.Cap. ($B)	$28.2
1 Year Bull	$262	*+6.5%*	EV ($B)	$31.7

Price History



	5Y	3Y	2Y	LTM	YTD	3M	1M
Return	16%	28%	55%	X%	21%	8%	1%

Summary

I recommend a sell rating with a target of $187. Although ROK has opportunities for future sales growth, worldwide uncertainty, lockdowns, and trade-wars present a significant threat to growth. The stock is overvalued based on relative and DCF analysis.

Financials

	2016	2017	2018	2019	2020	2021F	2022F
Sales($B)	**5.88**	**6.31**	**6.67**	**6.69**	**6.33**	**6.64**	**7.07**
Gr. %	-	7.3%	5.6%	0.4%	-5.5%	4.9%	6.4%
v. Cons.	-	-	-	-	-	7.2%	5.8%
Industry	-	4.6%	-	-2.2%	-		
EPS	**$5.60**	**$6.43**	**$4.2**	**$5.88**	**$8.84**	**$7.97**	**$9.12**
Gr. %	-	14%	-34%	37%	50.3%	-9.8%	14.4%
v. Cons.	-	-	-	-	-	-5.4%	9.1%
Industry	-	-2.2%	75%	1.5%			

Ratios

	2016	2017	2018	2019	2020	2021F	2022F
NPM	**12.4%**	**13.1%**	**8.0%**	**10.4%**	**16.2%**	**14.5%**	**14.9%**
Industry	-	-	-	-	11.5%	12.1%	12.8%
ROE	-	35.5%	25%	68.8%	117%	55.9%	45.3%
Industry	-	-	-	22.2%	29.6%	33.4%	35.5%
ROA	-	11.6%	8.0%	11.2%	15.3%	12.2%	12.7%
Industry	-	-	-	7.9%	8.1%	8.4%	9.3%
A T/O	-	0.88	0.99	1.08	0.95	0.87	0.84
A/E	-	3.06	3.14	6.12	7.64	4.58	3.55

Valuation

	2016	2017	2018	2019	2020	2021F	2022F
P/E	22.0	28.1	44.5	28.3	35.5	33.0	28.2
Industry	-	-	-	19.4	28.0	24.6	21.7
P/S	2.7	3.7	3.6	2.9	4.5	4.21	3.98
P/B	7.9	8.6	14.0	47.2	27.5	22.4	20.6
P/CF	16.9	22.4	18.3	16.6	24.6	24.9	25.8
EV/EBITDA	13.1	18.4	16.3	13.5	21.8		
D/P	-	-	-	-	-		

Key Drivers

- Acquisitions: Management is relying on the enhanced capabilities in the IoT industry and has made acquisitions that will play key roles in growing ROK's market share and continuing sales growth.
- Cost Controls: Due to the COVID-19 global pandemic, Rockwell had to initiate certain cost control initiatives to ensure client satisfaction and minimize job cuts. Cost controls added an additional $150 million to the company's funds, or $1.15 per share.
- Competition: Rockwell is positioned well within its competitors in terms of profitability and brand recognition. The company is smaller and more specialized than its competitors, which is a strength if utilized correctly. With roughly 60% of factories not being fully connected, ROK has significant opportunity to grow.
- Macroeconomic Trends: Industrial automation is highly dependent on economic conditions. The ISM PMI is at a lofty level as the economy is opening up and firms are ramping up

Valuation

Using a relative valuation approach, Rockwell appears to be highly valued in comparison to the industrial industry. DCF analysis implies that the stock is worth $187. A combination of the approaches suggests that Rockwell is overvalued, with its current price being $246.72

Risks

- COVID-19, and lockdowns as a by-product.
- Prolonged volatility could cause supply shortages.
- Larger competitors can afford more R&D.

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Company Overview

Rockwell Automation (ROK) is a pure-play industrial automation company that historically operated through two segments—architecture and software, and control products and solutions. As the largest pure-play industrial automation company in the world, Rockwell employs 23,000 people and has customers in more than 100 countries. Come FY2021, it will be operating within three segments—Intelligent Devices, Software & Control, and Lifecycle Services. Historically, Rockwell targeted discrete manufacturing processes, but its expanded product/service offerings in process-oriented industries and machine control will provide a larger market opportunity and new avenues for growth.

Architecture and Software

The Architecture & Software segment comprises 45% of the firm's total revenue. This segment contains hardware, software, and communication components of its integrated control and information architecture which are capable of controlling the customers' industrial processes and connecting with their business enterprises. Growth for the A&S segment has been historically positive; however, it experienced a decline in sales in both 2019 and 2020 respectively. I anticipate a strong rebound in 2021 and 2022 due to overall economic recovery.

Rockwell's EPS growth increased 38.2% YoY

Control Products and Solutions

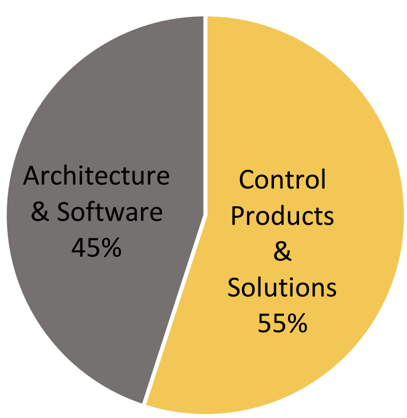
The Control Products & Solutions segment comprises 55% of the firm's total revenue. This segment combines a portfolio of intelligent motor control and industrial control products, application expertise, and project management capabilities. Control Products and Solutions has seen positive growth from 2017-2019. Due to the global pandemic CP&S saw negative growth in 2020, but is expected to rebound strong in 2021 and 2022.

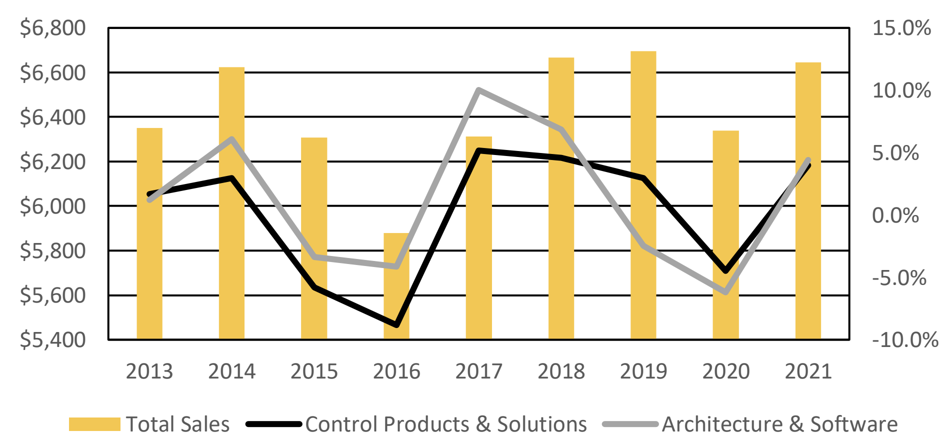
Brand Portfolio

Rockwell Automation's portfolio of brands includes Rockwell, Allen-Bradley, and FactoryTalk:

1. **Rockwell Automation**: Solutions and services that complement ROK's product offerings and maximize production throughout the automation lifecycle.
2. **Allen-Bradley**: Manufactures programable logic controllers (PLC), human-machine interfaces, sensors, safety components and systems, drive and drives systems, contactors, and motor control systems.
3. **FactoryTalk**: Supports an ecosystem of advanced industrial applications, including IoT. Software that offers cutting edge design, maximizes operational efficiencies, and delivers predicted and augmented maintenance advantages.

Figures 1 & 2: 2020 segment revenue (left); revenue growth (in millions) and sales growth since 2013 (right)





Source: FactSet

Business/Industry Drivers

Though several factors may contribute to Rockwell Automation's future success, the following are key business drivers:

1) Acquisitions
2) Cost Controls
3) Competition
4) Macroeconomic Trends

Acquisitions

With Rockwell's plan to operate under three new markets segments come FY2021, acquisitions will be a key role in driving growth for the company. Rockwell's sales in the first quarter of fiscal 2020 increased 2.6% compared to the first quarter of 2019, and acquisitions increased sales by 4.5%. Management is looking to enhance capabilities in the IoT industry and has made acquisitions that will play key roles in growing ROK's market share.

In late 2019, Rockwell acquired MESTECH, a global provider of manufacturing execution systems/manufacturing operations management, digital solutions consulting, and systems integration services. This acquisition expands the company's capabilities to profitably grow Information solutions and connected services globally. With India being one of Rockwell's fastest growing markets, MESTECH's footprint and expertise will enable Rockwell to grow at a fast rate.

Another key acquisition in January 2020 was a cybersecurity company, Avnet Data Security Ltd. Cybersecurity is one of Rockwell's fastest growing businesses as the manufacturing industry has evolved and become more connected than ever. Legacy physical security strategies are no longer enough to protect production operations, making this a key acquisition for Rockwell. Manufacturing companies will need to update outdated security services, and with the acquisition of Avnet, Rockwell will be in a position of strength to offer its services to increase its market share and growth.

In May of 2020, Rockwell acquired Kalypso, a software delivery and consulting firm specializing in the digital evolution of industrial companies with a strong client base in life sciences, consumer products, and industrial high-tech. Historically, Rockwell has been very cyclical versus the S&P 500. In this recession, the firm has been less cyclical. Along with becoming less cyclical, ROK's P/E multiple has steadily grown as the market has gained confidence in Rockwell's new direction. I believe this is due to the firm's acquisitions and its new focus on the software industry.

Figure 3: Recent Acquisitions

Announce Date	Close Date	Target	Target Industry
19 Feb '20	04 May '20	ASEM SpA	Computer Peripherals
19 Feb '20	04 May '20	Kalypso LP	Software/Consulting
08 Jan '20	31 Jan '20	Avnet Data Security Ltd.	Cybersecurity/IT
01 Oct '19	01 Oct '19	MESTECH Services Pvt Ltd.	Manufacturing IT Consulting

Source: FactSet

Rockwell's product portfolio spans hundreds of offerings in both business segments. The following is a slightly deeper look into both its software and hardware products.

Programable Logic Controllers

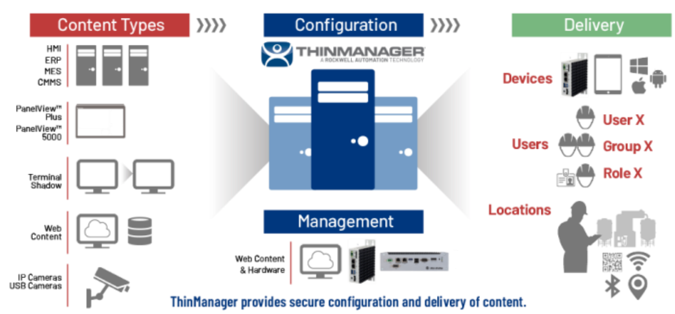
PLC's are industrial digitized computers. A PLC in a factory will control a specific machine and have the ability to report back on the productivity output. These controllers are vital to Rockwell's success moving forward due to the fact they will be able to sense when a specific machine might break down, this allows the factory to perform maintenance during off hours which maintains overall productivity.

CompactLogix 5480 (Small Scale) *ControlLogix 5580 Controllers (Large Scale)*

Source: rockwellautomation.com

Human Machine Interface

The firm offers visualization and human machine interface (HMI) solutions that help its clients address their productivity, innovation, and globalization needs. Its MobileView Tethered Operator Terminals are mobile devices that increase operator productivity and provide a safe production environment (pictured left). Its ThinManager software provides control and security in a sustainable and scalable platform regardless of the size of the industrial environment or number of facilities. The thin client architecture gives users the applications and tools familiar to them in a format that reduces management and maintenance costs while increasing security (pictured right).

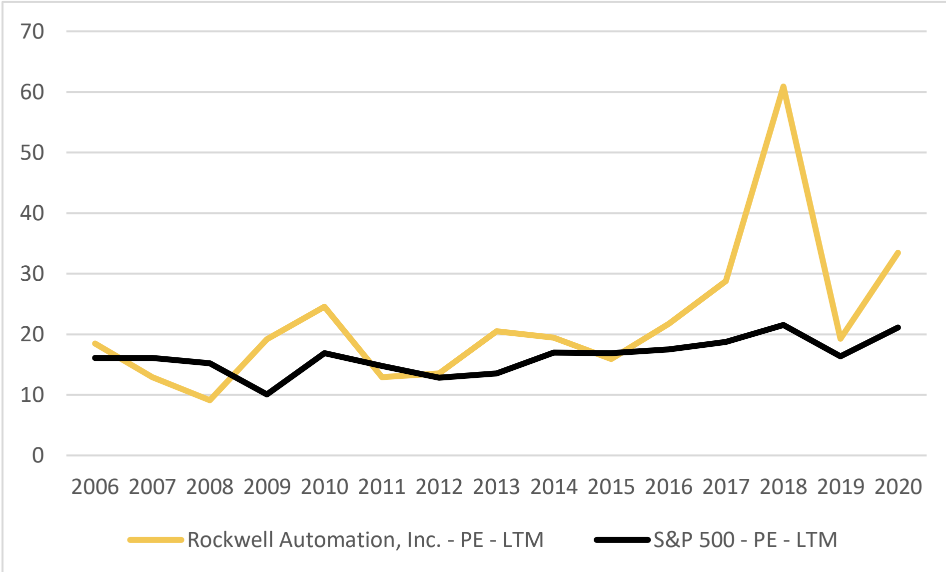


MobileView Tethered Operator Terminals *ThinManager software*

Source: rockwellautomation.com

ROK P/E is rising relative to the S&P 500

Figure 4: Rockwell P/E multiple since 2008 vs S&P 500 P/E multiple since 2006

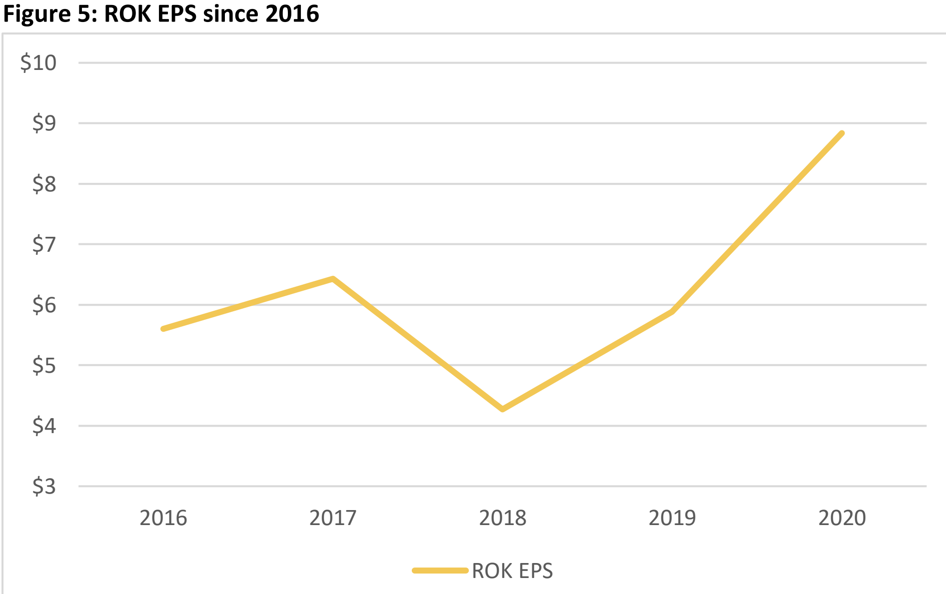


Source: FactSet

Cost Controls

In April of 2020, Rockwell announced it will be taking several actions to mitigate risk related to Covid-19. In order to minimize job cuts, there will be no incentive payouts for 2020, management is eliminating discretionary spending and cutting executive salaries. In May, ROK cut CEO Blake Morets salary by 25%, along with all SVP salaries by 15%, and reduced salaries for all non-manufacturing employees by 7.5%. In addition to the salary cuts, the firm also suspended 401(k) matching. The company plans to reverse these actions as soon as the markets recover. It is estimated that the cost controls will save Rockwell roughly $150 million. The implementation of cost controls allowed Rockwell to maintain its dividend quarterly payment of $1.02. If we take the amount Rockwell saved, ($150 million) and multiply it by (1-tax rate) and divide it by the number of shares outstanding (116 million), we can see they were able to contribute $1.15 to the total amount of earnings per share, $8.84. Cost controls contributed roughly 13% to total EPS.

Figure 5: ROK EPS since 2016



Source: FactSet

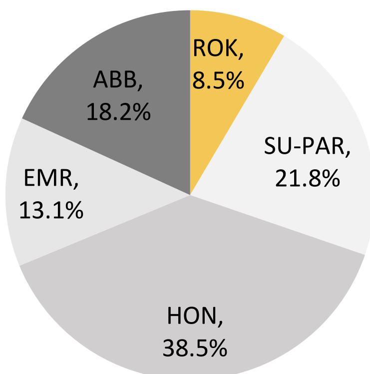
Competition

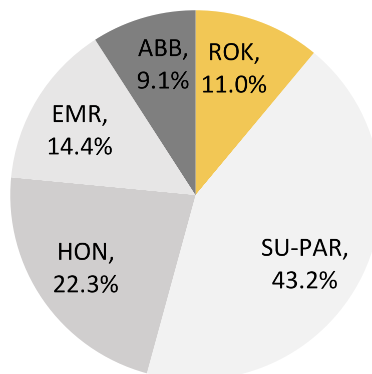
Industrial Automation is a highly specialized industry. The cost of committing capital, R&D costs, and the constant need to upgrade and change technology results in a high barrier to entry. With that being said, Rockwell is positioned better than its competitors in terms of profitability. ROK has a higher gross margin, return on equity, and return on invested capital. It's current and quick ratios are both above one, on par with the competition, showing that the firm is financially stable and can pay off short-term debt obligations without taking out more risk (debt). This is especially important for companies in the cyclical industrial industry.

Rockwell is in a unique position compared to its competitors due to the fact that it is solely focused on industrial automation. The graphs below show that ROK's percent of market cap is lower than its percent of sales. This normally suggests that it has lower profitability and/or lower growth, and/or higher risk. Since it has higher margins, and as earlier discussed, has become less volatile and seems to have good growth opportunities, the stock may be undervalued. Rockwell's sustained competitive advantage is that it has a sizeable installed customer base and flexible controller architecture, which permits growth in process manufacturing automation to complement its historically strong position in discrete automation.

Rockwell's share of market cap is lower than its share of sales

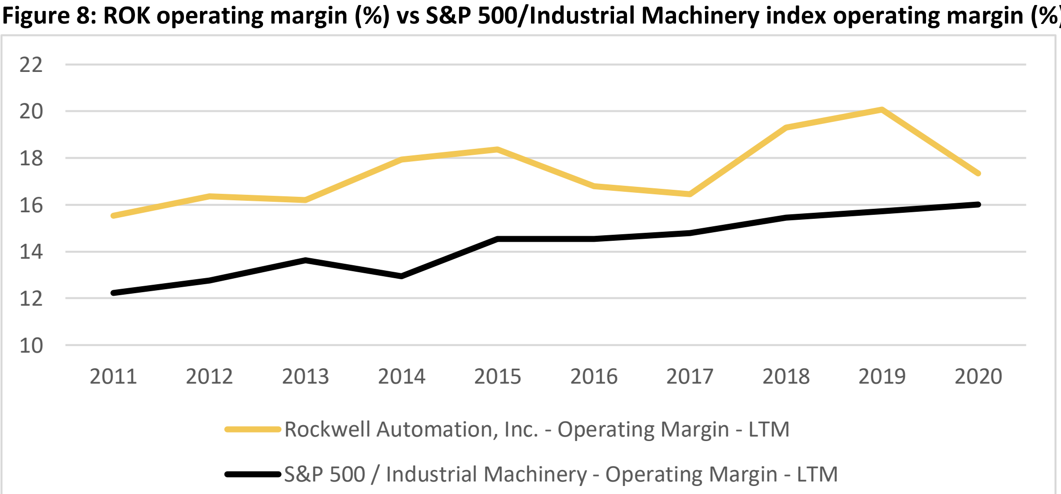
Figures 6 & 7: Industry concentration by market cap (left) vs. sales (right)





Source: FactSet, IMCP

Figure 8: ROK operating margin (%) vs S&P 500/Industrial Machinery index operating margin (%)



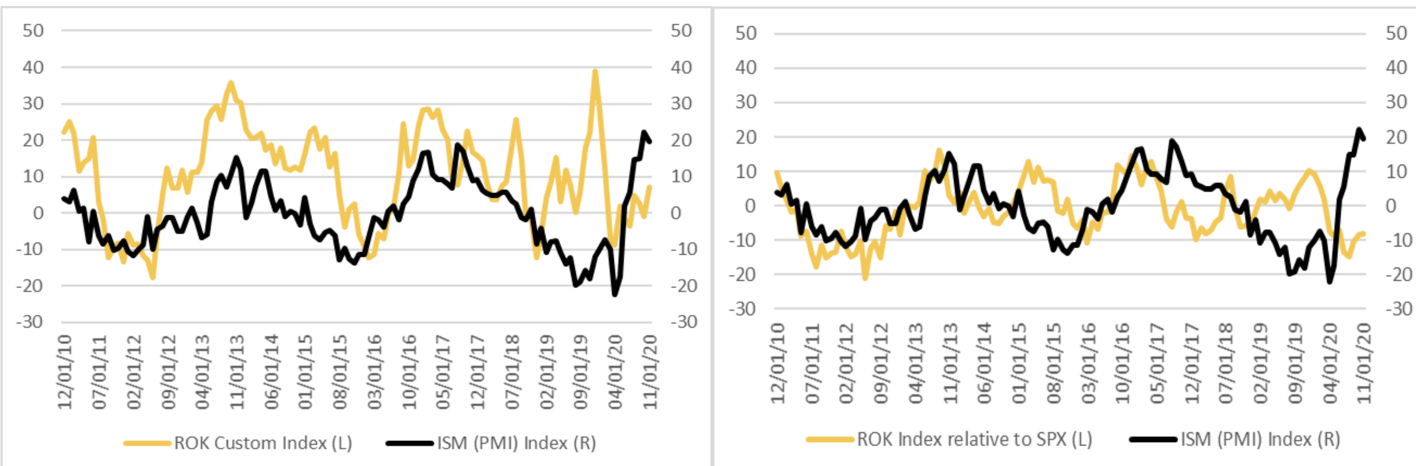
Source: FactSet

Macroeconomic Trends

Rockwell is a global company that primarily operates within the United States (60ROK% of sales), with the remaining business generated internationally. Fourteen percent of revenue is from the Asian Pacific region, and with the MESTECH acquisition, ROK will be expanding internationally due to its strong presence overseas. As of 2020, it is estimated that 60% of factories are not fully connected which provides a huge opportunity for Rockwell as it transitions into new market segments with the goal to fully connect the industrial automation industry. Historically, the industrial industry is extremely cyclical. With Rockwell's new focus on software, it is going to be less cyclical and more able to maintain a steady growth in its businesses. Rockwell's gross profit has increased every year since 2017.

Still, ROK is an industrial firm, so it is highly correlated with the ISM PMI index. This index gauges manufacturing growth. One can see from the graphs below that a custom composite of Rockwell and its peers versus the S&P 500 is positively correlated with the ISM PMI index.

Figures 9 & 10: ISM PMI vs ROK custom composite (left) and ISM PMI vs ROK custom index relative to S&P (right)

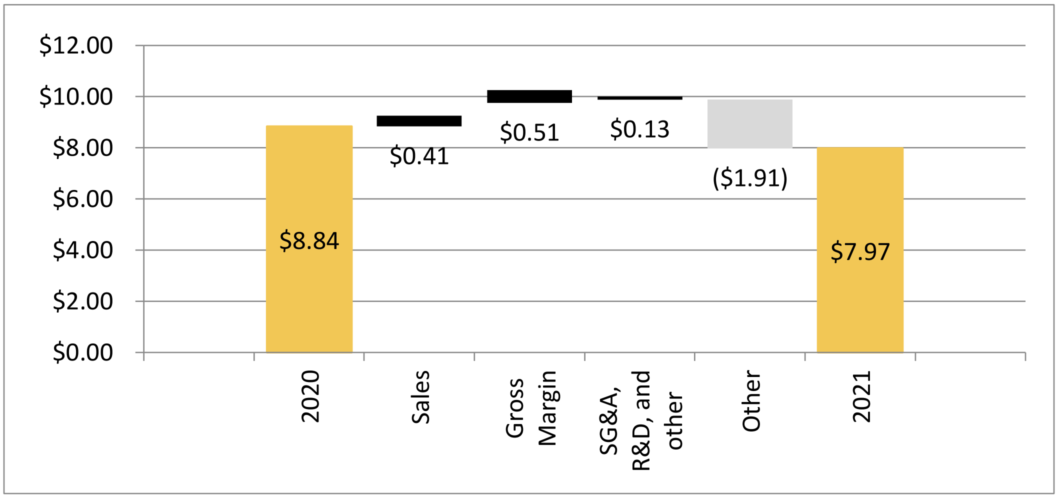


Source: FactSet, IMCP

Financial Analysis

I anticipate EPS to decrease to $7.97 in 2021. Having said that, I project a 4.9% increase in sales driven primarily by ROK's expanding software focus, economic improvements, and its recent acquisitions. I anticipate sales growth will add $0.41 to earnings on a per share basis. I expect gross margin to increase and add an additional $0.51 to EPS in 2021 . I believe Rockwell's commitment to expand its software capabilities will increase its reoccurring revenue and simplify its business, which adds $0.13 to EPS. Other impacts to EPS decrease by ($1.91). This decrease in EPS is primarily caused by an anticipated increase in taxes, and increase in expenses, and a decrease in net income.

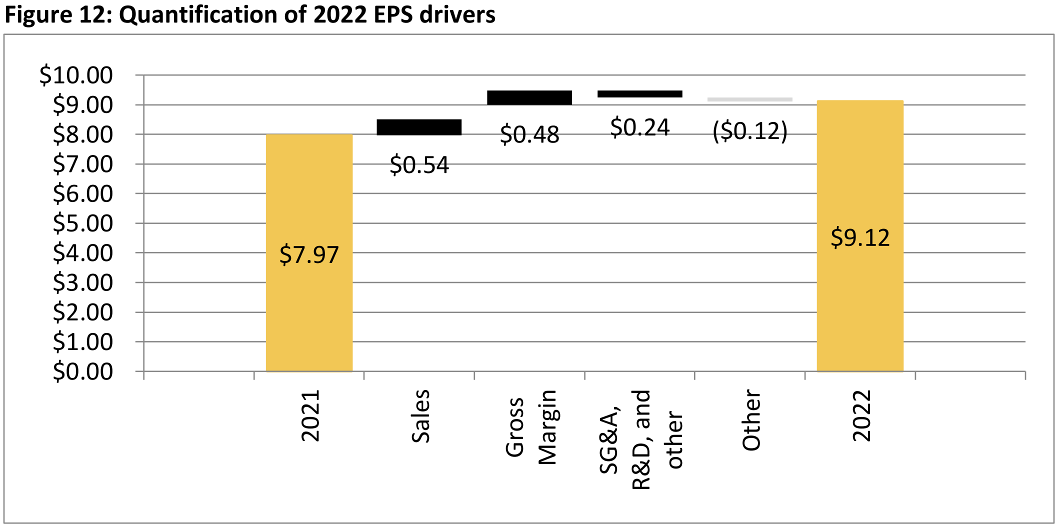
Figure 11: Quantification of 2021 EPS drivers



Source: IMCP, FactSet

I anticipate EPS to increase to $9.12 in 2022. I anticipate 6.4% sales growth adding $0.54 to EPS. I expect gross margin to increase due to sales growth and streamlined operations, which would add an additional $0.48 to EPS. As its software capabilities will be in greater affect, lower SG&A and R&D as a percent of sales will contribute $0.24 to earnings on a per share basis. Other impacts on EPS increase by $1.79 to ($0.12).

Figure 12: Quantification of 2022 EPS drivers



Source: IMCP, FactSet

I am slightly more pessimistic than consensus estimates for fiscal year 2021 EPS, and slightly more optimistic than consensus for fiscal year 2022 EPS. I predict slightly lower EPS in 2021 due to uncertainty revolving the pandemic, and lower sales growth relative to consensus. While my estimates fall within the range of consensus estimates, my 2022 estimate is much closer to consensus.

Figure 14: Quantification of 2022 EPS drivers

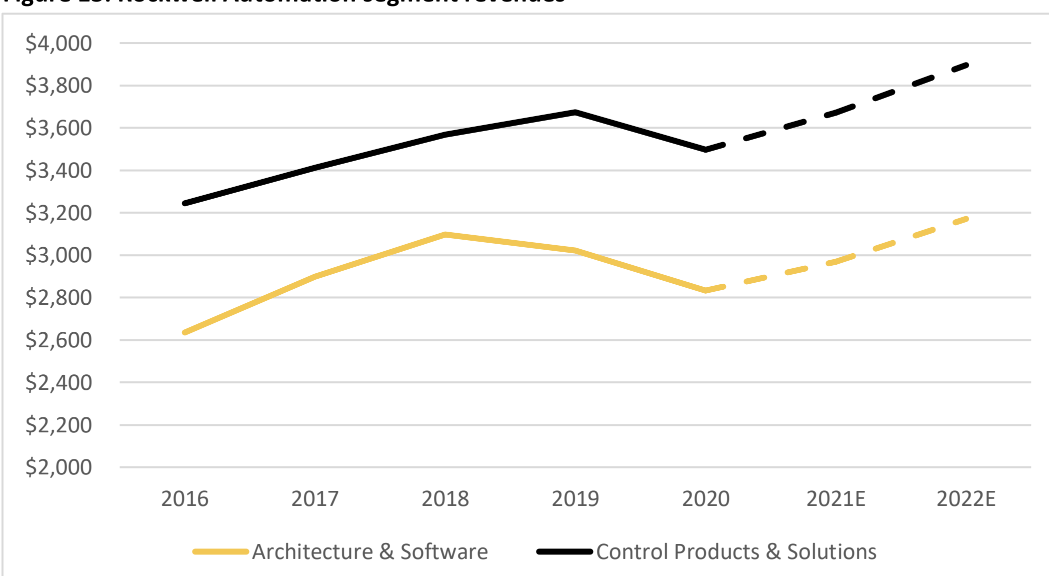
	FY 2021	FY 2022
Revenue - Estimate	$6,641	$7,066
YOY Growth	4.9%	6.4%
Revenue - Consensus	$6,900	$7,314
YOY Growth	9.0%	6.0%
EPS - Estimate	$7.97	$9.12
YOY Growth	-9.8%	14.4%
EPS - Consensus	$8.29	$9.05
YOY Growth	-5.5%	9.3%

Source: IMCP, FactSet

Revenues

Rockwell's revenues have seen both growth and decline over the past few years. The Architecture & Software division saw strong growth from 2016 – 2018, and decline from 2018 – 2020. In 2019, there was an increase in backlog orders exceeding $225 million beyond 2020, this is a factor in decreased revenue for the A&S segment. The A&S division has experienced strong growth in 2020 and is forecasted to grow 4.8% and 6.8% in 2021 and 2022 respectively. The Control Products & Solutions division roughly followed the same trajectory as the A&S division, growing 5.0% and 6.1% in 2021 and 2022. The company had a backlog of approximately $1.56 billion at the end of fiscal year 2020, or about 24.6% of 2020 sales.

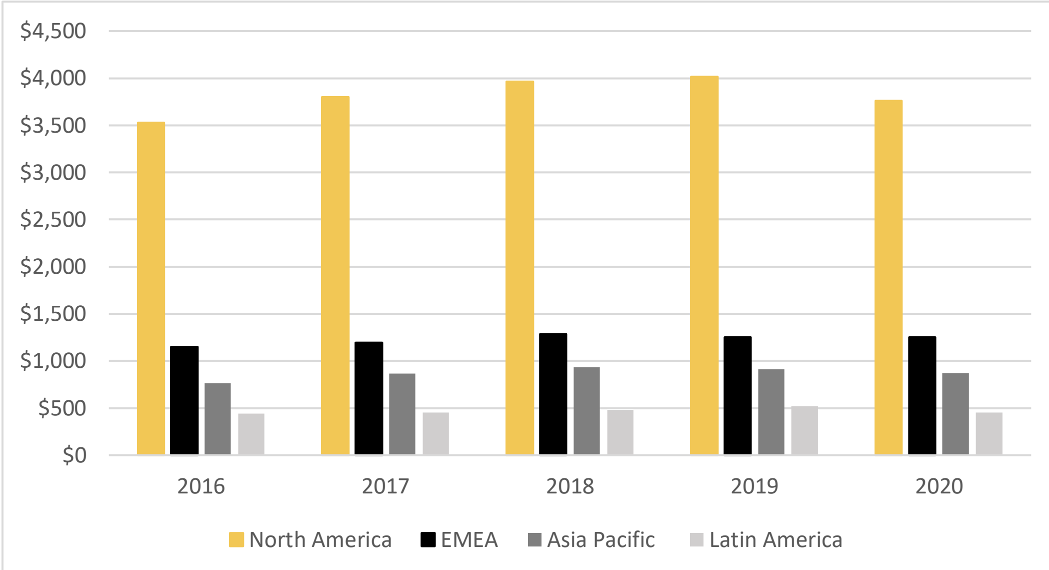
Figure 13: Rockwell Automation segment revenues



Source: Company Reports, IMCP

ROK US sales grew more steadily the past five years until the pandemic hit, and all other regions roughly followed the United States' lead. Growth internationally, possibly through acquisitions, and a strong software focus may boost growth in 2021 and 2022. Recent acquisitions targeted the Asia Pacific region.

Figure 14: Sales by geographical region (in millions)



Source: Company Reports, IMCP

Return on Equity

Rockwell's ROE relative to its comps is extremely high. From 2014 – 2018, the firm had a ROE ranging from 25% – 35%. Today, its five year moving average is 61.3%, compared to the industrial sector average, which is 22.8%. A reason for ROK's high ROE is its extremely high debt to equity ratio. Its five year average is 213.2%, compared to the industrial industry, which is 131.1%. From 2017-2019, margins and asset turnover also rose. The tax rate has been volatile due to changes in the tax law. With my predicted sales growth, combined with ROK lowing their debt to equity ratio by paying off debt, I expect ROE to fall closer to its five year average, which is still well above the industrial sector. Due to an increase in share buybacks, A/E rose from 2019-2020.

Figure 15: ROE breakdown, 2017 – 2022E

As sales rise, ROE will rise accordingly

5-stage DuPont	2017	2018	2019	2020	2021E	2022E
EBIT / sales	16.4%	19.3%	20.1%	17.2%	18.5%	20.0%
Sales / avg assets	0.88	0.99	1.08	0.95	0.87	0.84
EBT / EBIT	92.7%	94.3%	92.7%	91.6%	94.6%	94.5%
Net income /EBT	85.9%	44.2%	55.8%	102.3%	80.0%	80.0%
ROA	11.6%	8.0%	11.2%	15.3%	12.2%	12.7%
Avg assets / avg equity	3.06	3.14	6.12	7.64	4.58	3.55
ROE	35.5%	25.0%	68.8%	116.9%	55.9%	45.3%

Source: FactSet, Company Reports, IMCP

Free Cash Flow

ROK's free cash flows have been growing the past few years, especially from 2018 -2019, with over 130% growth in cash flows. 2019 was a high because of its 150% increase in NOPAT, and its decline in both net working capital and net fixed assets. After a dip in fiscal 2020 due to a falling NOPAT and rising net fixed assets, I expect a 325% increase in 2021 due to rising NOPAT and moderate capital growth. I expect a slight decrease in 2022 despite rising NOPAT, due to increases in net working capital and net fixed assets.

Figure 16: Free cash flows

Free Cash Flow	2016	2017	2018	2019	2020	2021E	2022E
NOPAT	$758	$809	$443	$1,123	$969	$983	$1,131
Growth		*6.7%*	*-45.3%*	*153.6%*	*-13.7%*	*1.5%*	*15.0%*
NWC*	1,131	1,464	526	331	195	299	353
Net fixed assets	2,916	2,741	3,431	3,127	4,579	4,676	4,976
Total net operating capital*	$4,048	$4,205	$3,957	$3,458	$4,774	$4,975	$5,330
Growth		*3.9%*	*-5.9%*	*-12.6%*	*38.0%*	*4.2%*	*7.1%*
- Change in NWC*		333	(938)	(195)	(136)	104	54
- Change in NFA		(175)	690	(304)	1,452	98	300
FCFF*		$651	$691	$1,622	($347)	$781	$776
Growth			*6.1%*	*134.8%*	*-121.4%*	*-325.1%*	*-0.7%*
- After-tax interest expense	55	59	25	82	81	53	62
FCFE**		$592	$666	$1,540	($429)	$728	$714
Growth			*12.5%*	*131.3%*	*-127.8%*	*-269.9%*	*-1.9%*
* NWC excludes cash							
** No adjustment is made for debt							

Source: FactSet, Company Reports, IMCP

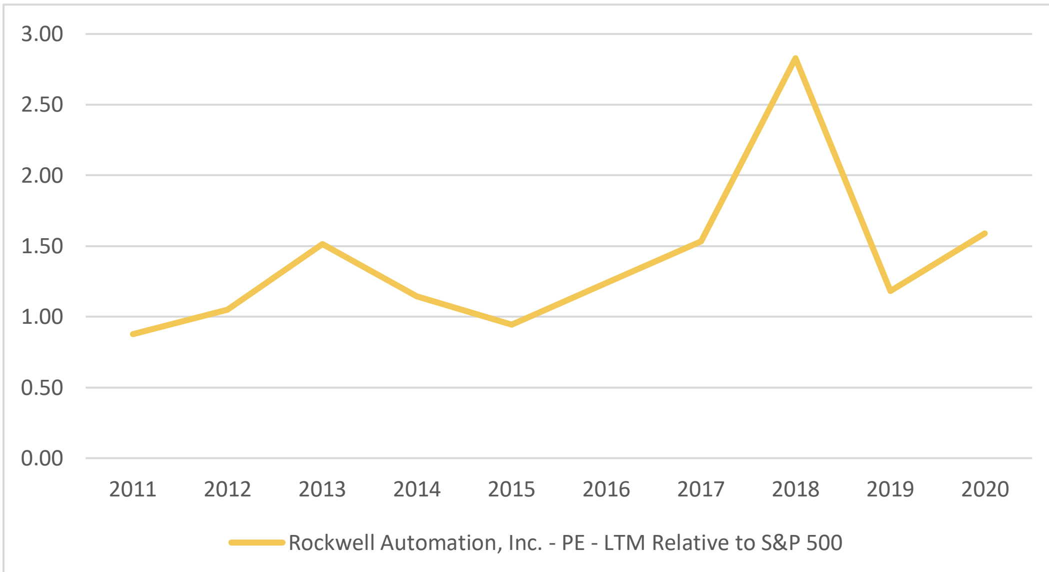
Valuation

ROK was valued using multiples and a 3-Stage discounted cash flow model. Based on P/E, the stock is worth $236. Based on P/B, the stock is worth $154. A DCF analysis values ROK at $187. I believe this to be more realistic because I expect slower sales growth, lower earnings, and increased taxes in 2021. As a result of the DCF analysis, I value the stock at $187.

Trading History

Over the past decade, Rockwell's P/E rose by 158%. Its current P/E relative to the S&P 500 has moved between 1 and 2.83 since 2015; although, the high was due to a temporary drop in EPS in 2018 because of a rise in taxes due to repatriation of cash. ROK is currently trading near its five-year average of 1.67 relative to the S&P 500. The current LTM P/E reflects market expectations for growth beyond 2021; however, both mine and consensus expect EPS to be down in 2021.

Figure 17: ROK LTM P/E relative to S&P 500



Source: FactSet

Assuming the firm maintains a 33 LTM P/E (high) at the end of 2021, it should trade at $263 by the end of the year:

- Price = P/E x EPS = 33 x $7.97 = $263

Discounting $263 back to today at a 11.2% cost of equity (explained in Discounted Cash Flow section) yields a price of $236. Given ROK's potential for earnings growth and continued profitability, this may be possible. However, the stock appears to be overvalued which is consistent with my concern about near-term earnings.

Relative Valuation

Rockwell is currently trading at a P/E above its peers, with a P/E TTM of 28.5 compared to an average of 23.6. This shows investors are confident in growth and most likely pricing in ROK's new business strategy. Looking at P/B, Rockwell comes in significantly higher than its peers. This is expected as its ROE and net profit margin are above averages. The firm is very levered (219% debt to equity vs 110% for the average) due to share buybacks. The combination of ROK's high debt to equity, P/E, and P/B ratios show investors are confident about the future.

Figure 18: ROK comparable companies

Ticker	Current Price	Market Value	Price Change 1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	Earnings Growth LTG	NTM	2019	2020	2021	2022	Pst 5yr	Beta	LT Debt/ Equity	S&P Rating	LTM Dividend Yield	Payout
ROK	$246.77	$28,669	(1.8)	(0.9)	12.5	13.1	23.5	21.8	9.6	-1.2%	37.7%	50.2%	-9.7%	14.4%		1.41	218.9%	A-	1.62%	46.5%
SU-PAR	$139.13	$74,574	0.2	(3.7)	7.8	21.0	28.2	25.4	11.4		10.7%	-11.8%	20.8%	12.8%		0.81			2.19%	
HON	$211.97	$148,736	(0.1)	4.9	29.0	37.5	21.8	19.8	4.8	9.5%	-6.1%	-17.7%	14.3%	12.1%		1.13	101.2%	A-	1.78%	51.7%
EMR	$81.36	$48,656	(0.3)	5.1	20.5	23.5	9.1	6.7	8.0	7.1%	7.2%	-12.7%	-0.6%	20.2%		1.56	79.7%	A	2.60%	61.6%
ABB	$26.86	$56,187	(0.3)	(0.8)	3.5	24.1	18.4	11.5	8.1	-57.9%	-6.8%	-36.3%	55.7%	21.1%	-9.7%	1.12	41.7%		2.57%	
Average		$71,365	(0.5)	0.9	14.7	23.9	20.2	17.0	8.4	-10.6%	8.6%	-5.7%	16.1%	16.1%	-9.7%	1.21	110.4%		2.15%	53.3%
Median		$56,187	(0.3)	(0.8)	12.5	23.5	21.8	19.8	8.1	2.9%	7.2%	-12.7%	14.3%	14.4%	-9.7%	1.13	90.4%		2.19%	51.7%
SPX	$3,668		(0.1)	3.5	9.9	15.0	17.1	13.5			1.0%	-14.6%	21.5%	16.5%						

Ticker	2020 ROE	P/B	P/E 2018	2019	2020	TTM	NTM	2021	2022	2020 NPM	2020 P/S	NM	OM	ROIC	EV/ EBIT	P/CF Current	Sales Growth NTM	STM	Pst 5yr	Book Equity
ROK	99.8%	27.90	35.2	34.5	27.9	28.1	28.5	31.0	27.1	16.2%	4.53	16.2%	17.2%	36.3%	25.4	24.6	6.8%	4.9%		$8.85
SU-PAR	11.2%	3.06	13.1	17.8	27.3			22.6	20.0	10.9%	2.99	8.9%	14.8%	8.7%	14.3	18.1				$45.45
HON	26.9%	8.23	14.7	21.0	31.0	30.4	27.8	26.8	23.9	15.1%	4.63	16.7%	20.0%	21.2%	18.5	26.5	-0.2%	7.8%		$25.76
EMR	23.1%	5.79	17.3	20.6	25.4	25.1	23.4	25.3	21.0	11.5%	2.90	11.7%	16.6%	14.2%	15.9	15.8	2.0%	5.1%		$14.06
ABB	9.9%	3.36	14.3	19.4	33.9	10.2	24.2	21.8	18.0	7.2%	2.46	3.7%	9.1%	5.0%	22.7	26.5	3.6%	7.2%	-6.9%	$8.00
Average	34.2%	9.67	18.9	22.7	29.1	23.5	26.0	25.5	22.0	12.2%	3.50	11.4%	15.5%	17.1%	19.4	22.3	3.0%	6.3%	-6.9%	
Median	23.1%	5.79	14.7	20.6	27.9	26.6	26.0	25.3	21.0	11.5%	2.99	11.7%	16.6%	14.2%	18.5	24.6	2.8%	6.2%	-6.9%	
spx			15.5	19.8	26.3			21.7	18.6											

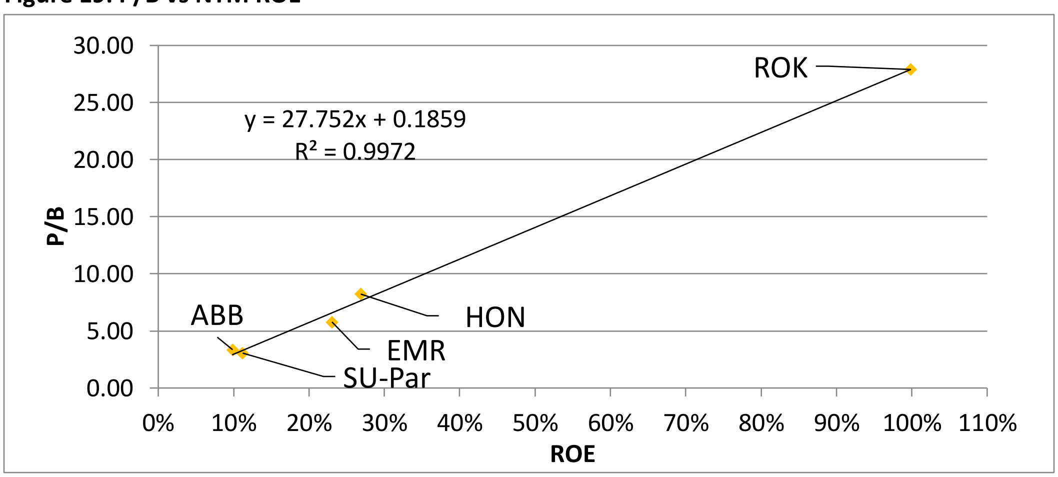
Source: FactSet, IMCP

A more thorough analysis of P/B and ROE is shown in figure 19. The calculated R-squared of the regression indicates that over 99% of a sampled firm's P/B is explained by its 2020 ROE:

- Appropriate P/B = Estimated 2021 ROE (55.9%) x 27.725 + 0.1859 = 15.68
- Target Price = Estimated P/B (15.68) x 2021E BVPS (10.95) = $171.70

Discounting back to the present at a 11.2% cost of equity leads to a target price of $154.41 using this metric.

Figure 19: P/B vs NTM ROE



Source: IMCP, FactSet

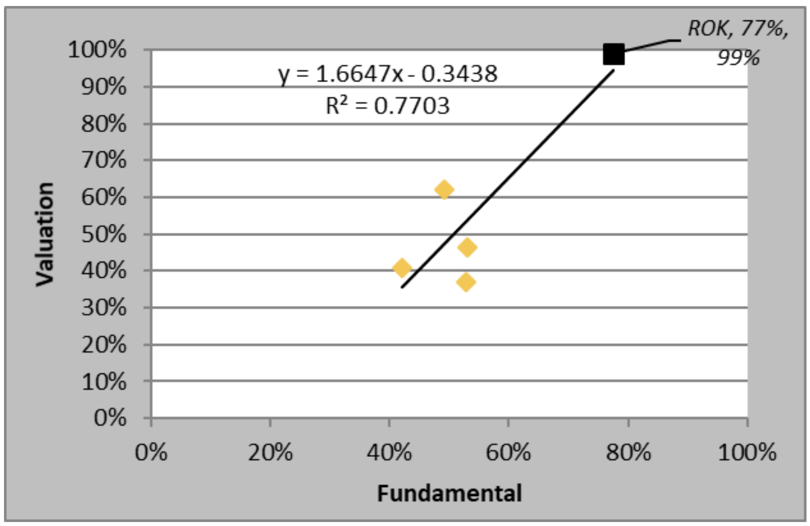
For a final comparison, I created a composite ranking of fundamental variables and compared this to a composite of valuation. Since the variables have different scales, each was converted to a percentile before calculating the composite score. I weighted 2022 earnings growth, debt to equity, and NPM at 20 percent each. ROE was given a weight of 40 percent, P/B was weighted at 50 percent, and P/E and P/S were weighted at 25 percent. Figure 21 shows that Rockwell is slightly above the line and expensive.

Figure 20: Composite valuation, % of range

		Fundamentals					Valuation	
		20.0%	20.0%	40.0%	20.0%	25.0%	50.0%	25.0%
Ticker	**Name**	**EPS Growth 2022**	**1/(LTD/ Equity)**	**2020 ROE**	**2020 NPM**	**P/E 2021**	**P/B**	**P/S**
ROK	ROCKWELL AUTOMATION	68%	19%	100%	100%	100%	100%	96%
SU-PAR	SCHNEIDER ELECTRIC	61%	60%	11%	67%	75%	11%	65%
HON	HONEYWELL INTERNATIONAL INC	57%	41%	27%	93%	88%	30%	100%
EMR	EMERSON ELECTRIC CO	95%	52%	23%	71%	82%	21%	62%
ABB	ABB LTD	100%	100%	10%	45%	71%	12%	53%

ROK is expensive relative to its competition

Figure 21: Composite relative valuation



Source: IMCP

Discounted Cash Flow Analysis

A three-stage discounted cash flow model was also used to value ROK.

For the purpose of this analysis, the company's cost of equity was calculated to be 11.2% using the Capital Asset Pricing Model. The underlying assumptions used in calculating this rate are as follows:

- The risk-free rate, as represented by the ten-year Treasury bond yield, is 1%.
- A ten-year beta of 1.13 was utilized since the company has higher risk than the market.
- A long-term market rate of return of 10% was assumed, since historically, the market has generated an annual return of about 10%.

Given the above assumptions, the cost of equity is 11.2% (1.0 + 1.13 (10.0 – 1.0)).

Stage One - The model's first stage simply discounts fiscal years 2021 and 2022 free cash flow to equity (FCFE). These per share cash flows are forecasted to be $1.29 and $1.71, respectively. Discounting these cash flows, using the cost of equity calculated above, results in a value of $2.54 per share. Thus, stage one of this discounted cash flow analysis contributes $2.54 to value.

Stage Two - Stage two of the model focuses on fiscal years 2023 to 2027. During this period, FCFE is calculated based on revenue growth, NOPAT margin and capital growth assumptions. The resulting cash flows are then discounted using the company's 11.2% cost of equity. I assume 6% sales growth in 2023, and a constant growth at 6% to 2027. The ratio of sales to NOWC will slowly rise from 2022 levels, and NFA turnover will rise from 1.42 in 2023 to 1.70 in 2027 as a result of improvements in operations. Also, NOPAT growth is expected to rise 6-10% from 2023-2027.

Figure 22: FCFE and discounted FCFE, 2021 – 2027

	2021	2022	2023	2024	2025	2026	2027
FCFE	$ 1.29	$ 1.71	$ 11.86	$ 6.78	$ 13.41	$ 12.35	$ 9.28
Discounted FCFE	$ 1.16	$ 1.38	$ 8.63	$ 4.44	$ 7.90	$ 6.54	$ 4.42

Added together, these discounted cash flows total $31.93.

Stage Three – Net income for the years 2023 – 2027 is calculated based upon the same margin and growth assumptions used to determine FCFE in stage two. EPS is expected to grow from $7.97 in 2021 to $12.83 in 2027.

Figure 23: EPS estimates for 2021 – 2027

	2021	2022	2023	2024	2025	2026	2027
EPS	$ 7.97	$ 9.12	$ 9.64	$ 10.57	$ 11.51	$ 12.15	$ 12.83

Stage three of the model requires an assumption regarding the company's terminal price-to-earnings ratio. While the current TTM P/E is 33, this is quite high versus the market and industrial companies. However, the market may be to slow to recognize this given its current opportunities thus, a 25 multiple is used.

Given the assumed terminal earnings per share of $12.83 and a price to earnings ratio of 25, a terminal value of $320.80 per share is calculated. Using the 11.2% cost of equity, this number is discounted back to a present value of $152.87.

Total Present Value – given the above assumptions and utilizing a three stage discounted cash flow model, an intrinsic value of $187.34 is calculated (2.54 + 31.93 + 152.87). Given ROK's current price of $246.72, this model indicates that the stock is overvalued.

Scenario Analysis

The value of the stock is difficult to predict because of its cyclicality. Thus, bull and bear scenarios are considered.

Rockwell's five-year P/E is roughly 33, which is somewhat unusual for an industrial company due to the maturity and cyclicality of the industry. I used a P/E of 25 for ROK's base case as it falls a little below the 5-year average.

Figure 24: ROK Base Case

Summary (using P/E multiple for terminal value)		
First stage	$2.54	Present value of first 2 year cash flow
Second stage	$31.93	Present value of year 3-7 cash flow
Third stage	$152.87	Present value of terminal value P/E
Value (P/E)	**$187.34**	

Source: IMCP

In a bullish scenario sales growth rises to 7% throughout the second stage, beta drops to 1.0, and P/E rises to 33. Through the above estimates, the stock would result in a value of $262.04.

Figure 25: ROK Bull Case

Summary (using P/E multiple for terminal value)		
First stage	$2.58	Present value of first 2 year cash flow
Second stage	$32.78	Present value of year 3-7 cash flow
Third stage	$226.68	Present value of terminal value P/E
Value (P/E)	**$262.04**	

Source: IMCP

In a bearish scenario, ROK's stock could drop significantly, if some people believe there is a recession on the horizon. Beta rises to 1.41, up 0.2 from the base. These changes alone would result in a price of $161.81. However, if we drop the P/E to 20, this further reduces the price to $135.68.

Figure 25: ROK Bear Case

Summary (using P/E multiple for terminal value)		
First stage	$2.45	Present value of first 2 year cash flow
Second stage	$28.69	Present value of year 3-7 cash flow
Third stage	$104.54	Present value of terminal value P/E
Value (P/E)	**$135.68**	

Source: IMCP

Business Risks

The following risks present potential hurdles to Rockwell's business, and could adversely affect it going forward.

COVID-19

Due to the COVID-19 pandemic, Rockwell has and could continue to experience a decrease in demand from its customers due to lower industrial spending. The impact of the COVID-19 pandemic has increased the costs of making and distributing ROK's hardware and software products, and solutions and services. It could result in delays in delivering, or an inability to deliver to customers.

Competitive marketplace:

Rockwell expects the level of competition to remain high in the future, which could limit its ability to maintain or increase its market share or profitability. If the company fails to keep up with technological advancement and provide high quality products, it may lose business or experience price erosion and correspondingly lower sales and margins.

International business dealings

Approximately 46% of ROK's sales in 2020 were international; this shows a great deal of its success overseas, but it also means ROK is reliant on growth in non-U.S. markets. Issues regarding tariffs, taxes, and political instability could greatly affect Rockwell's bottom line. ROK is also affected by changes in foreign currency exchange rates, inflation rates, and interest rates.

Reliance on suppliers

Rockwell relies on its suppliers to provide equipment, components, and services. As we saw in 2020, disruption to the supply chain can cause large issues. Delivery delays can adversely impact the company's profitability.

Appendix 1: Porter's 5 Forces

Threat of New Entrants – Relatively Low

Capital requirements for industrial automation processes is extremely high. New entrants also face hurdles such as conforming to environmental production of standards, establishing brand loyalty, and utilizing the latest in manufacturing technology.

Threat of Substitutes – Moderate

There are many companies that produce comparable product offerings in Rockwell's business segments. Original equipment manufacturers could choose to transition to competitors if needed.

Supplier Power - Moderate

Rockwell is a price taker, so they must treat the market price as given. To offset this threat, the company can build an efficient supply chain with multiple suppliers, and develop dedicated suppliers whose business depends upon the firm.

Buyer Power – Moderately High

Buyer contracts can represent a large percentage of the firm's business. Due to the fact that a buyer can move between sellers easily, Rockwell must rely on its brand loyalty and product expertise.

Intensity of Competition – High

There is always going to be a threat on competition. Brand loyalty can play a huge role in combatting this, but it does not alleviate it completely.

Appendix 2: SWOT Analysis

Strengths	Weaknesses
High gross margins High brand recognition Strong FCF	High days in inventory Smaller than comps Highly specialized
Opportunities	**Threats**
Restructuring International acquisitions Emerging markets	COVID-19 Supply shortages Tariffs and trade wars

Appendix 3: Income Statement

Items	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Sales	$5,880	$6,311	$6,666	$6,695	$6,330	$6,641	$7,066
Direct costs	3,404	3,687	3,794	3,795	3,735	3,852	4,028
Gross Margin	2,476	2,624	2,872	2,900	2,595	2,789	3,039
SG&A, R&D, D&A, and other	1,487	1,587	1,586	1,556	1,503	1,561	1,625
EBIT	988	1,038	1,286	1,344	1,092	1,229	1,413
Interest	71	76	73	98	92	66	78
EBT	917	961	1,213	1,246	1,000	1,162	1,336
Taxes	213	212	795	205	113	232	267
Income	703	750	418	1,041	887	930	1,069
Other	(26)	(76)	(118)	345	(136)	-	-
Net income	730	826	536	696	1,023	930	1,069
Basic Shares	130.2	128.4	125.4	118.3	115.8	116.6	117.1
Fully Diluted Shares	131.1	129.9	126.9	119.3	116.6	117.4	117.9
EPS	$5.60	$6.43	$4.27	$5.88	$8.84	$7.97	$9.12
EPS Fully Diluted	$5.57	$6.36	$4.22	$5.83	$8.78	$7.92	$9.06
DPS	$2.90	$3.04	$3.52	$3.89	$4.08	$4.29	$3.84

Appendix 4: Balance Sheets

Items	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Cash	1,526	1,411	619	1,018	705	1,283	1,797
Operating assets ex cash	2,659	3,010	2,212	1,967	1,981	1,992	2,049
Operating assets	4,185	4,421	2,831	2,986	2,686	3,275	3,846
Operating liabilities	1,527	1,545	1,686	1,636	1,786	1,693	1,696
NOWC	2,658	2,875	1,145	1,349	900	1,582	2,150
NOWC ex cash (NWC)	1,131	1,464	526	331	195	299	353
NFA	2,916	2,741	3,431	3,127	4,579	4,676	4,976
Invested capital	*$5,574*	*$5,616*	*$4,576*	*$4,477*	*$5,479*	*$6,258*	*$7,127*
Marketable securities	-	-	-	-	-	-	-
Total assets	*$7,101*	*$7,162*	*$6,262*	*$6,113*	*$7,265*	*$7,951*	*$8,823*
S-T and L-T debt and financing leases	$2,508	$2,467	$2,490	$2,257	$1,999	$1,799	$1,649
Other liabilities	823	660	757	1,816	2,132	2,482	2,732
Debt/equity-like securities	-	-	-	-	-	-	-
Equity	1,990	2,664	1,618	404	1,347	1,976	2,745
Total supplied capital	*$5,321*	*$5,791*	*$4,864*	*$4,477*	*$5,479*	*$6,258*	*$7,127*
Total liabilities and equity	*$6,848*	*$7,336*	*$6,550*	*$6,113*	*$7,265*	*$7,951*	*$8,823*

Appendix 5: Sales Forecast

Items	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Sales	5,880	6,311	6,666	6,695	6,330	6,641	7,066
Growth		*7.3%*	*5.6%*	*0.4%*	*-5.5%*	*4.9%*	*6.4%*
Architecture & Software	2,635	2,899	3,098	3,022	2,833	2,969	3,171
Growth		*10.0%*	*6.9%*	*-2.5%*	*-6.3%*	*4.8%*	*6.8%*
% of sales	*44.8%*	*45.9%*	*46.5%*	*45.1%*	*44.8%*	*44.7%*	*44.9%*
Control Products & Solutions	3,244	3,412	3,568	3,673	3,497	3,672	3,896
Growth		*5.2%*	*4.6%*	*2.9%*	*-4.8%*	*5.0%*	*6.1%*
% of sales	*55.2%*	*54.1%*	*53.5%*	*54.9%*	*55.2%*	*55.3%*	*55.1%*
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
North America	3,530	3,802	3,964	4,014	3,760	3,918	4,268
Growth		*7.7%*	*4.3%*	*1.3%*	*-6.3%*	*4.2%*	*8.9%*
% of sales	*60.0%*	*60.2%*	*59.5%*	*60.0%*	*59.4%*	*59.0%*	*60.4%*
EMEA	1,147	1,194	1,287	1,250	1,249	1,262	1,357
Growth		*4.1%*	*7.8%*	*-2.9%*	*0.0%*	*1.0%*	*7.5%*
% of sales	*19.5%*	*18.9%*	*19.3%*	*18.7%*	*19.7%*	*19.0%*	*19.2%*
Asia Pacific	764	866	933	909	869	950	989
Growth		*13.3%*	*7.7%*	*-2.6%*	*-4.4%*	*9.3%*	*4.2%*
% of sales	*13.0%*	*13.7%*	*14.0%*	*13.6%*	*13.7%*	*14.3%*	*14.0%*
Latin America	438	449	482	522	452	511	452
Growth		*2.6%*	*7.2%*	*8.4%*	*-13.5%*	*13.2%*	*-11.6%*
% of sales	*7.5%*	*7.1%*	*7.2%*	*7.8%*	*7.1%*	*7.7%*	*6.4%*

Appendix 6: Ratios

Items	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Profitability							
Gross margin	42.1%	41.6%	43.1%	43.3%	41.0%	42.0%	43.0%
Operating (EBIT) margin	16.8%	16.4%	19.3%	20.1%	17.2%	18.5%	20.0%
Net profit margin	12.4%	13.1%	8.0%	10.4%	16.2%	14.0%	15.1%
Activity							
NFA (gross) turnover		2.23	2.16	2.04	1.64	1.43	1.46
Total asset turnover		0.88	0.99	1.08	0.95	0.87	0.84
Liquidity							
Op asset / op liab	2.74	2.86	1.68	1.82	1.50	1.93	2.27
NOWC Percent of sales		43.8%	30.2%	18.6%	17.8%	18.7%	26.4%
Solvency							
Debt to assets	35.3%	34.4%	39.8%	36.9%	27.5%	22.6%	18.7%
Debt to equity	126.0%	92.6%	153.9%	558.4%	148.4%	91.0%	60.1%
Other liab to assets	11.6%	9.2%	12.1%	29.7%	29.4%	31.2%	31.0%
Total debt to assets	46.9%	43.7%	51.8%	66.6%	56.9%	53.8%	49.7%
Total liabilities to assets	68.4%	65.2%	78.8%	93.4%	81.5%	75.1%	68.9%
Debt to EBIT	2.54	2.38	1.94	1.68	1.83	1.46	1.17
EBIT/interest	13.86	13.62	17.61	13.69	11.89	18.48	18.21
Debt to total net op capital	45.0%	43.9%	54.4%	50.4%	36.5%	28.8%	23.1%
ROIC							
NOPAT to sales	12.9%	12.8%	6.6%	16.8%	15.3%	14.8%	16.0%
Sales to NWC		4.86	6.70	15.62	24.07	26.89	21.67
Sales to NFA		2.23	2.16	2.04	1.64	1.43	1.46
Sales to IC ex cash		1.53	1.63	1.81	1.54	1.36	1.37
Total ROIC ex cash		19.6%	10.8%	30.3%	23.5%	20.2%	21.9%
NOPAT to sales	12.9%	12.8%	6.6%	16.8%	15.3%	14.8%	16.0%
Sales to NOWC		2.28	3.32	5.37	5.63	5.35	3.79
Sales to NFA		2.23	2.16	2.04	1.64	1.43	1.46
Sales to IC		1.13	1.31	1.48	1.27	1.13	1.06
Total ROIC		14.5%	8.7%	24.8%	19.5%	16.7%	16.9%
NOPAT to sales	12.9%	12.8%	6.6%	16.8%	15.3%	14.8%	16.0%
Sales to EOY NWC	5.20	4.31	12.67	20.23	32.46	22.22	20.00
Sales to EOY NFA	2.02	2.30	1.94	2.14	1.38	1.42	1.42
Sales to EOY IC ex cash	1.45	1.50	1.68	1.94	1.33	1.33	1.33
Total ROIC using EOY IC ex cash	18.7%	19.2%	11.2%	32.5%	20.3%	19.8%	21.2%
NOPAT to sales	12.9%	12.8%	6.6%	16.8%	15.3%	14.8%	16.0%
Sales to EOY NOWC	2.21	2.20	5.82	4.96	7.04	4.20	3.29
Sales to EOY NFA	2.02	2.30	1.94	2.14	1.38	1.42	1.42
Sales to EOY IC	1.05	1.12	1.46	1.50	1.16	1.06	0.99
Total ROIC using EOY IC	13.6%	14.4%	9.7%	25.1%	17.7%	15.7%	15.9%
ROE							
5-stage							
EBIT / sales		16.4%	19.3%	20.1%	17.2%	18.5%	20.0%
Sales / avg assets		0.88	0.99	1.08	0.95	0.87	0.84
EBT / EBIT		92.7%	94.3%	92.7%	91.6%	94.6%	94.5%
Net income /EBT		85.9%	44.2%	55.8%	102.3%	80.0%	80.0%
ROA		11.6%	8.0%	11.2%	15.3%	12.2%	12.7%
Avg assets / avg equity		3.06	3.14	6.12	7.64	4.58	3.55
ROE		35.5%	25.0%	68.8%	116.9%	55.9%	45.3%
3-stage							
Net income / sales		13.1%	8.0%	10.4%	16.2%	14.0%	15.1%
Sales / avg assets		0.88	0.99	1.08	0.95	0.87	0.84
ROA		11.6%	8.0%	11.2%	15.3%	12.2%	12.7%
Avg assets / avg equity		3.06	3.14	6.12	7.64	4.58	3.55
ROE		35.5%	25.0%	68.8%	116.9%	55.9%	45.3%
Payout Ratio		47.3%	82.3%	66.1%	46.2%	53.8%	42.1%
Retention Ratio		52.7%	17.7%	33.9%	53.8%	46.2%	57.9%
Sustainable Growth Rate		18.7%	4.4%	23.3%	62.9%	25.9%	26.2%

Appendix 7: DCF

Year ending September	2020	2021	2022	2023	2024	2025	2026	2027
Sales Growth	*-5.5%*	*4.9%*	*6.4%*	*6.0%*	*6.5%*	*6.0%*	*6.0%*	*6.0%*
NOPAT / S	*15.3%*	*14.8%*	*16.0%*	*16.0%*	*16.5%*	*17.0%*	*17.0%*	*17.0%*
S / NOWC	*7.04*	*4.20*	*3.29*	*4.00*	*4.00*	*4.00*	*5.00*	*5.00*
S / NFA (EOY)	*1.38*	*1.42*	*1.42*	*1.50*	*1.50*	*1.70*	*1.70*	*1.70*
S / IC (EOY)	*1.16*	*1.06*	*0.99*	*1.09*	*1.09*	*1.19*	*1.27*	*1.27*
ROIC (EOY)	*17.7%*	*15.7%*	*15.9%*	*17.5%*	*18.0%*	*20.3%*	*21.6%*	*21.6%*
ROIC (BOY)		*17.9%*	*18.1%*	*16.8%*	*19.2%*	*19.7%*	*21.5%*	*22.9%*
Share Growth	*-2.1%*	*0.7%*	*0.5%*	*0.3%*	*0.4%*	*0.4%*	*0.4%*	*0.4%*
Sales	$6,330	$6,641	$7,066	$7,490	$7,977	$8,456	$8,963	$9,501
NOPAT	$969	$983	$1,131	$1,198	$1,316	$1,438	$1,524	$1,615
Growth	*-13.7%*	*1.5%*	*15.0%*	*6.0%*	*9.8%*	*9.2%*	*6.0%*	*6.0%*
- Change in NOWC	-450	682	569	-278	122	120	-321	108
NOWC EOY	*900*	*1582*	*2150*	*1873*	*1994*	*2114*	*1793*	*1900*
Growth NOWC	*-33.3%*	*75.8%*	*36.0%*	*-12.9%*	*6.5%*	*6.0%*	*-15.2%*	*6.0%*
- Chg NFA	1452	98	300	17	325	-344	298	316
NFA EOY	*4,579*	*4,676*	*4,976*	*4,994*	*5,318*	*4,974*	*5,273*	*5,589*
Growth NFA	*46.4%*	*2.1%*	*6.4%*	*0.3%*	*6.5%*	*-6.5%*	*6.0%*	*6.0%*
Total inv in op cap	1002	780	869	-260	446	-224	-23	424
Total net op cap	5479	6258	7127	6866	7313	7088	7065	7489
FCFF	($33)	$203	$262	$1,459	$870	$1,662	$1,547	$1,191
% of sales	*-0.5%*	*3.1%*	*3.7%*	*19.5%*	*10.9%*	*19.7%*	*17.3%*	*12.5%*
Growth		*-710.8%*	*29.0%*	*456.7%*	*-40.4%*	*91.0%*	*-6.9%*	*-23.0%*
- Interest (1-tax rate)	81	53	62	66	70	74	79	83
Growth	*-0.7%*	*-34.7%*	*16.7%*	*6.0%*	*6.5%*	*6.0%*	*6.0%*	*6.0%*
FCFE w/o debt	($115)	$150	$200	$1,393	$800	$1,588	$1,468	$1,108
% of sales	*-1.8%*	*2.3%*	*2.8%*	*18.6%*	*10.0%*	*18.8%*	*16.4%*	*11.7%*
Growth		*-230.8%*	*33.3%*	*596.6%*	*-42.6%*	*98.5%*	*-7.5%*	*-24.5%*
/ No Shares	115.8	116.6	117.1	117.5	117.9	118.4	118.9	119.4
FCFE	($0.99)	$1.29	$1.71	$11.86	$6.78	$13.41	$12.35	$9.28
Growth		*-229.9%*	*32.7%*	*594.5%*	*-42.8%*	*97.7%*	*-7.9%*	*-24.8%*
* Discount factor		0.90	0.81	0.73	0.65	0.59	0.53	0.48
Discounted FCFE		$1.16	$1.38	$8.63	$4.44	$7.90	$6.54	$4.42
Third Stage								
Terminal value P/E								
Net income	$1,023	$930	$1,069	$1,133	$1,246	$1,363	$1,445	$1,532
% of sales	*16.2%*	*14.0%*	*15.1%*	*15.1%*	*15.6%*	*16.1%*	*16.1%*	*16.1%*
EPS	$8.84	$7.97	$9.12	$9.64	$10.57	$11.51	$12.15	$12.83
Growth	*50.3%*	*-9.8%*	*14.4%*	*5.7%*	*9.6%*	*9.0%*	*5.6%*	*5.6%*
Terminal P/E								25.00
* Terminal EPS								$12.83
Terminal value								$320.80
* Discount factor								0.48
Discounted terminal value								$152.87

Summary (using P/E multiple for terminal value)

First stage	$2.54	Present value of first 2 year cash flow
Second stage	$31.93	Present value of year 3-7 cash flow
Third stage	$152.87	Present value of terminal value P/E
Value (P/E)	**$187.34**	