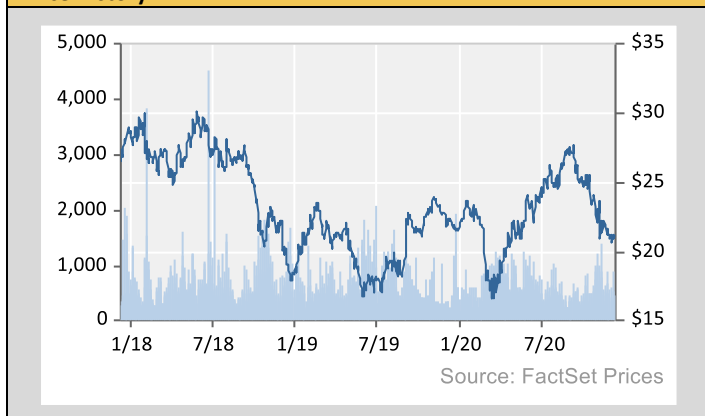


Recommendation: Buy

Current Price	\$20.67	---	Ticker	SNDR
1 Year Bear	\$18	-13%	Sh. Out. (M)	177.3
1 Year Base	\$22	6%	M.Cap. (\$M)	4,003
1 Year Bull	\$29	40%	EV (\$M)	3,950

Price History

	5Y	3Y	2Y	LTM	YTD	3M	1M
Return	-	-6%	13%	7%	8%	-14%	2%

Financials

	2016	2017	2018	2019	2020	2021F	2022F
Sales(\$B)	4.05	4.38	4.98	4.75	4.49	4.67	5.02
Gr. %	2.2%	8.4%	13.5%	-4.6%	-5.4%	4.2%	7.4%
Cons	-	-	-	-	-	7.4%	5.4%
Industry	0.4%	9.1%	15.3%	1.5%	0.8%	4.9%	3.2%
EPS	-	-	\$1.52	\$0.83	\$1.22	\$1.50	\$1.87
Gr. %	-	-	-	45.4%	46.8%	23.5%	24.6%
v. Cons.	-	-	-	-	-	24%	25%
Industry	19.7%	64.1%	-11.5%	-11.8%	8.5%	19.5%	19.1%

Ratios

	2016	2017	2018	2019	2020	2021F	2022F
NPM	-	8.9%	5.4%	3.1%	4.8%	5.7%	6.6%
Industry	-	-	5.5%	4.8%	4.8%	5.0%	5.9%
ROE	-	25.4%	13.4%	6.7%	9.5%	11.0%	12.5%
Industry	-	-	24.0%	19.9%	19.9%	18.4%	20.9%
ROA	-	12.2%	7.7%	4.0%	5.6%	6.5%	7.6%
Industry	-	-	10.4%	8.6%	8.6%	8.1%	9.4%
A T/O	1.4	1.4	1.4	1.3	1.2	1.1	1.2
A/E	-	2.1	1.7	1.7	1.7	1.7	1.6

Valuation

	2016	2017	2018	2019	2020	2021F	2022F
P/E	-	12.5	12.3	26.3	29.6	29.4	22.8
Industry	-	-	-	20.1	23.6	22.2	17.8
P/S	-	1.1	0.7	0.8	0.8		
P/B	-	2.7	1.5	1.7	1.8		
P/CF	-	10.6	5.8	6.1	5.9		
EV/EBITDA	-	9.3	4.9	6.0	6.1		
D/P	-	6.6%	15.8%	28.9%	20.4%		

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Industrials, Trucking

Schneider National

Summary

I recommend a buy rating with a target of \$22. SNDR has multiple segments showing strong signs of growth that have only been temporarily set back by a cyclical downturn. The business has many opportunities to improve margins in the next few years. The stock is undervalued using a DCF analysis. The current price represents realistic expectations for the company. I see this as a lukewarm buying opportunity for the stock.

Key Drivers

- North American Economic Strength: SNDR conducts the majority of its operations throughout North America. Its ability to generate sales growth depends on the health of the US economy and it is expected to be strong in 2021.
- Competition: The trucking industry is highly fragmented (small carriers make up 93% of interstate carriers), but it's still highly competitive. Schneider takes advantage of this through contracting owner-operators. While fee per mile is higher, this reduces capital investment.
- Technology: The trucking industry is adapting its business to utilize new technological advancements. Schneider's use of data analytics helps improve efficiency. Additionally, advancements in autonomous driving put the industry on the edge completely reshaping.
- Hiring Ability: The trucking industry suffers from intermittent inability to hire. Labor costs are 25% of revenue and have been rising; although, SNDR's total employee base has been shrinking.

Valuation

Using a relative valuation approach, SNDR seems to be somewhat undervalued relative to peers. DCF Analysis suggests the stock is undervalued, and worth around \$22.

Risks

Threats to the business include economic decline, increased competition, and driver shortages.

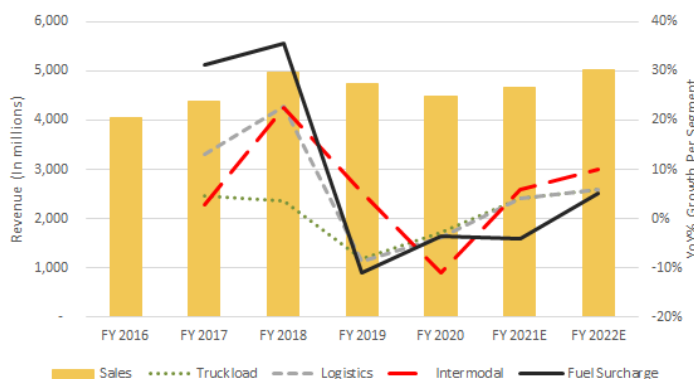
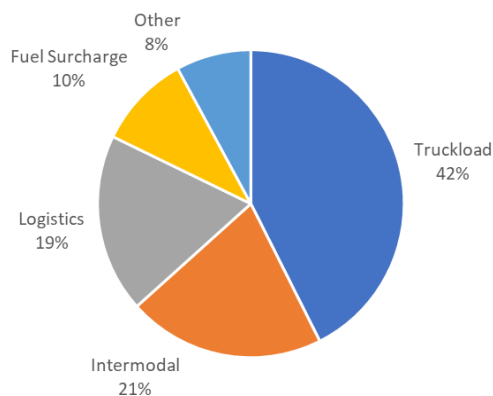
Company Overview

Schneider National (SNDR) is a North American based trucking and logistics services company operating in Canada, the United States, Mexico, and with limited operations in China. The company has a market cap of \$4.54 billion, making it one of the largest North American trucking companies. As of the end of 2019, the company employed roughly 15,600 non-union employees. Headquartered in Green Bay, Wisconsin, the company completed its IPO and went public in 2017, 82 years after being founded by Al. J. Schneider in 1935. SNDR offers the transportation of goods using dry van, bulk, temperature-controlled, intermodal, and flat-bed equipment. As of the end of 2019, SNDR had a network of 35 operating centers and nine distribution warehouses. In 2007, it received the distinction of being the first U.S. trucking company to receive operating authority in China, under the subsidiary Schneider Tianjin.

Schneider National generates revenue from four main sources:

- 1) **Truckload:** Freight transported by company-employed drivers as well as owner-operators. This segment accounted for the largest single source of revenue for the company, generating 43% in FY 2019. Truckload revenues slid 8.3% in the same year, largely due to a cyclical downturn in the transportation industry. In the first nine months of 2020, truckload revenue has slid by 13% compared to 2019. This was due to driver capacity restraints, as well as the shutdown of a service offering which helped to generate \$14 million of revenue in the third quarter of 2019, the last period in which it operated before shutdown, I anticipate a further 3% decline in 2020, and a return to growth in the next two years as the industry benefits from the economic recovery after COVID-19. Prior to the cyclical downturn in 2019, truckload sales grew 3.6% in FY 2018
- 2) **Logistics:** SNDR offers freight brokerage, import/export services, third party logistics and supply chain management. This segment generated 19% of sales at year-end 2019. This segment reported an 8.7% decrease in 2019, primarily due to a large customer insourcing parts of their supply chain previously managed by SNDR. Lower revenue per order due to pricing pressure also contributed to the loss. For the same reasons as truckload, my financial model assumes another 4% decline for year-end 2020, and a return to single digit percentage growth in the 2 years after. Prior to the cyclical downturn in 2019, SNDR logistics grew 22.8% in FY 2019. I believe that this segment is positioned for growth in 2021 and 2022, growing by 4% and 6% respectively.
- 3) **Intermodal:** Container on flat Car (COFC) service using over-the-road transportation as well as by train using rail carrier partners. SNDR utilizes company-owned containers, chassis, and trucks to offer this service. This segment generated 21% of revenue in 2019 and was the only segment able to grow in FY 2019, at 5.4%. The company reports that this was largely due to improved revenue per order. Prior to the downturn the segment saw a 22.6% growth in FY 2018. Looking at nine months ended for FY 2020, I forecast a decrease in total sales YoY, and a recovery in FY 2021 and FY2022 for the same reasons as the truckload segment as well as the company making large investments into this segment in recent years.
- 4) **Fuel Surcharge:** Additional fees billed to customers to compensate for increases in fuel costs. This surcharge is a way to reduce the affect to net income brought on by heavy price fluctuations of fuel. This surcharge was responsible for 21% of revenue in FY 2019. The growth of this segment is inversely correlated with the average cost of diesel fuel. It was due to this that the segment saw an 11% decrease in FY 2019. In FY 2018, as diesel prices spiked, the revenue from this surcharge grew 35.5% YoY. I am conservative with growth estimates looking forward for this segment, as forecasting diesel prices is out of the scope of this report. The ability of SNDR to pass on fluctuations of diesel prices to customers also leads me to believe it is not a substantial driver to bottom-line growth.

Figures 1 & 2: Growth by segment, revenue sources (left) and 2019 total revenue (Right)



Source: Company reports & Factset

Business/Industry Drivers

Though several factors may contribute to Schneider’s future success, the following are the most important business drivers:

- 1) North American Economic Strength
- 2) Competition
- 3) Technology
- 4) Hiring Ability

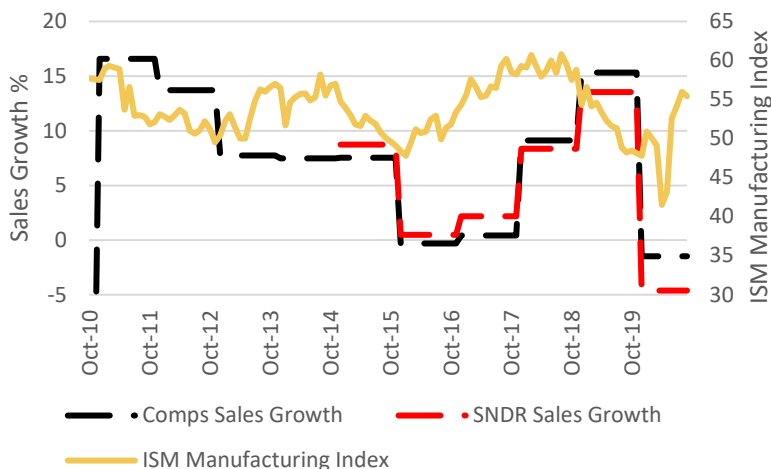
North American Economic Strength

The majority of operations are in North America, so the strength of the U.S. economy largely determines growth. Figure 3 shows economic strength via the ISM Purchase Managers Index. The Purchase Managers Index is correlated with freight volumes. One can see that it is correlated with the sales of SNDR and its comps.

80% of truckload and intermodal service sales are priced through contracts

A downturn in the economy is a risk for the trucking industry, but it is important to note that the industry has historically generated roughly 80% of truckload and intermodal sales through contractual rates. Contracts are attractive to regular customers who wish to avoid short-term pricing volatility. These non-binding contracts range from three months to a year. The other 20% of business is conducted through spot rates, shipping prices based on the current volume. This is higher than average for the industry and poses a risk for the company, as the spot market is inherently more volatile.

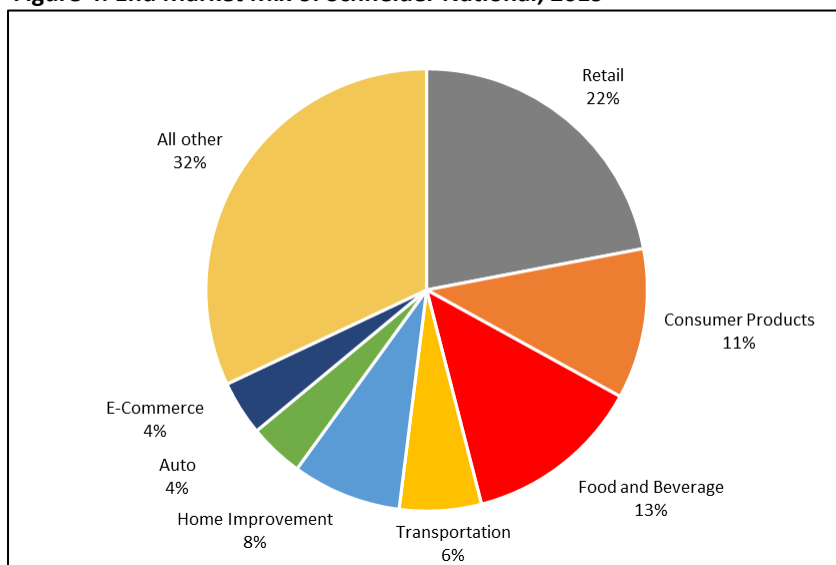
Figure 3: SNDR, comps sales growth compared to ISM



Source: Factset

Figure 4 shows the firm’s end-market mix and helps to provide a sense of how shifts in the economy have the potential to affect earnings. The highest single markets are retail, consumer products, and food/beverage. Retail sales have risen during the pandemic as a result of government stimulus, and food/beverage sales have remained stable.

Figure 4: End Market Mix of Schneider National, 2019



Source: Company Reports

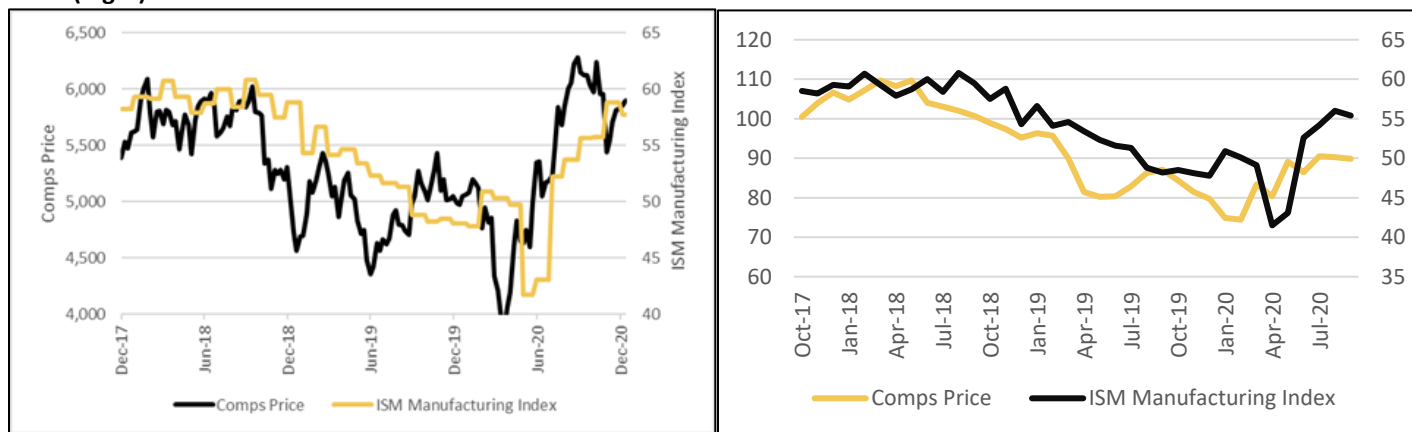
Although Schneider does have international exposure, it does not seem to be a high priority

Schneider Tianjin operates in China. This provides some diversification away from North American economic health. However, the company rarely mentions this subsidiary in financial reports and investor presentations. Additionally, the company does not breakout the percentage of revenue from North American versus Asian operations, making any quantification of growth due to Schneider Tianjin nearly impossible.

Overall, Schneider National’s success will depend largely on the North American economic recovery and continued growth for their own revenue growth. Schneider has developed a powerful and stable network to conduct its operations, but these networks can become inefficient, or even dysfunctional if restrictions continue to disrupt trade between the United States, Mexico, and Canada.

Lastly, figures 5 and 6 show the correlation between annual changes in the comps' and the ISM PMI index. Market sentiment is largely based on manufacturing output. SNDR's comps have underperformed the S&P 500 for the last two years by an average of roughly 14%.

Figure 5 and 6: ISM Index Compared to SNDR comps price (Left) and ISM Index compared to SNDR comps relative to S&P 500 index (Right)



Source: Factset

Competition

24% of Schneider National drivers are owner-operators under contract

SNDR's competition is highly fragmented. Small carriers with less than 20 trucks make up 93% of all interstate carriers in the U.S. SNDR takes advantage of this fact through contracting owner-operators, which are small business owners who operate their own personal trucks. In 2019, approximately 24% of SNDR drivers were operating through these contracts. This is above industry average. J.B. Hunt's driver base is only 7% owner operator, and it is only 5% at Werner. I believe that overweighting their employee base in owner-operators is a method to reduce costs related to equipment and employee benefits. However, owner-operators receive higher pay-per-mile, which is the primary incentive for them to purchase their own equipment. In addition, an above average owner-operator base provides SNDR with greater flexibility when it comes to cost reduction. Finally, it also keeps the capital of the firm down which could boost ROA.

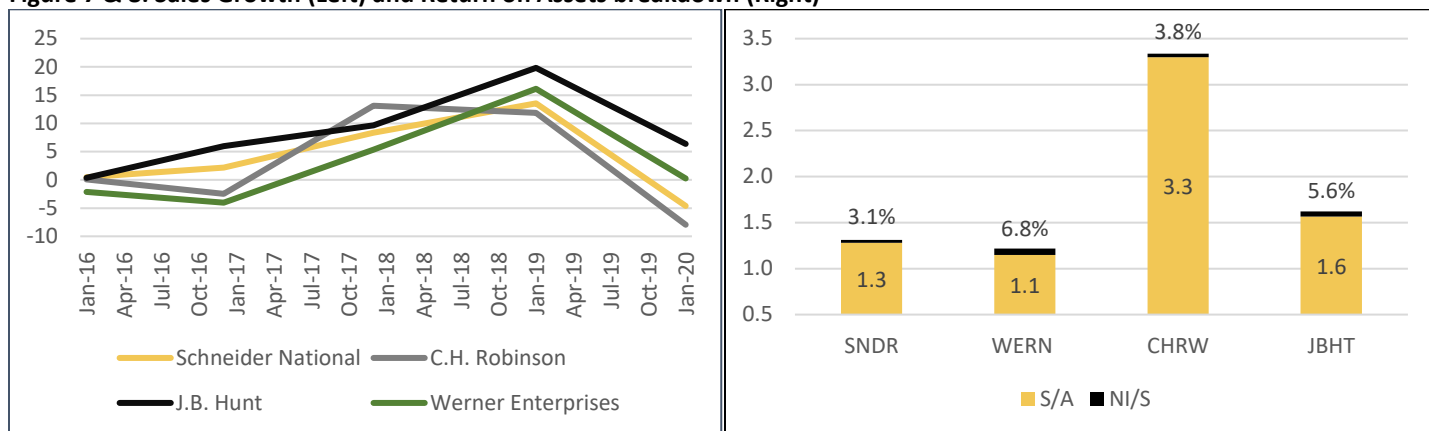
Schneider historically does not acquire companies, believing that such deals often impose more risk and liability than they are worth. The company's most recent acquisition was in 2016 with the purchase of two private trucking companies: Watkins & Shepard and Lodeso. Lodeso was a home delivery company which used proprietary technology to handle its logistics network. Watkins & Shepard specialized in oversized product and furniture last-mile delivery. The value of this acquisition is still undisclosed as of 2020. At the time of acquisition, the percentage of furniture sales done via e-commerce was expected to grow. This remains the industry consensus, now more so than ever due to COVID-19. SNDR believed that there was substantial room to grow this last mile delivery business, as small parcel delivery services like UPS and FedEx are not equipped to handle these types of large items. Despite this, SNDR ended up halting all operations of Watkins & Shepard in 2019, citing failure to meet expectations. The segment lost over \$26 million in the first half of 2019. This was roughly 1% of sales, or 27% of pretax income for the first half of the year.

The comparable public companies in direct competition with Schneider National include Werner enterprises, J.B. Hunt, and C.H. Robinson Worldwide. Figure 7 shows top-line sales growth. The industry was slowing over the last year, and SNDR has ranked third against the comps.

ROA helps us measure the efficiency of asset-heavy companies within the trucking industry. Because the industry is asset heavy, the company that best employs systems to utilize its equipment and centers will assuredly have an advantage. In figure 8 we see that SNDR is lagging behind competitors in terms of

ability to effectively utilize assets. As discussed earlier, the use of owner-operators should reduce assets and boost ROA, but SNDR’s ROA is low. High salaries, which will be discussed later, could be negatively affecting these margins.

Figure 7 & 8: Sales Growth (Left) and Return on Assets breakdown (Right)



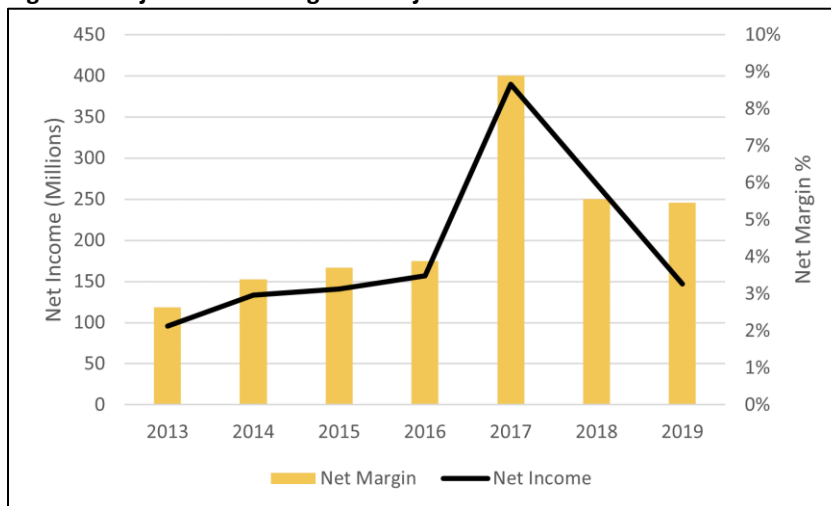
Source: Company Report, FactSet

Technology

Schneider’s history of technological advancement gives them a strong competitive edge

One of SNDR’s main competitive advantages is its focus on advancements in information technology. In 2013, the firm began a five-year project called *Quest* to reengineer existing processes to function around an IT platform of the same name. This platform allows the company to more efficiently meet demand using real-time data including route schedules, truck capacity, and per-load profitability. The *Quest* platform utilizes Oracle Technologies software. SNDR has committed to purchasing several Tesla electric trucks in an effort to reduce operating costs. SNDR hopes to integrate *Quest* into the on-board technology of these trucks and this is currently in the development phase. Using this platform should help to increase business efficiency, leading to better margins. Figure 9 shows net income and net margin after adding back unusual expenses. Margins and income both improved up until 2017, implying more efficient business operations. In 2017, a surge in net income was due to SNDR’s income tax liability being reduced by 216% compared to the previous year. Excluding this year, the firm has had stable margin growth.

Figure 9: Adjusted Net Margin vs. Adjusted Net Income



Source: Factset

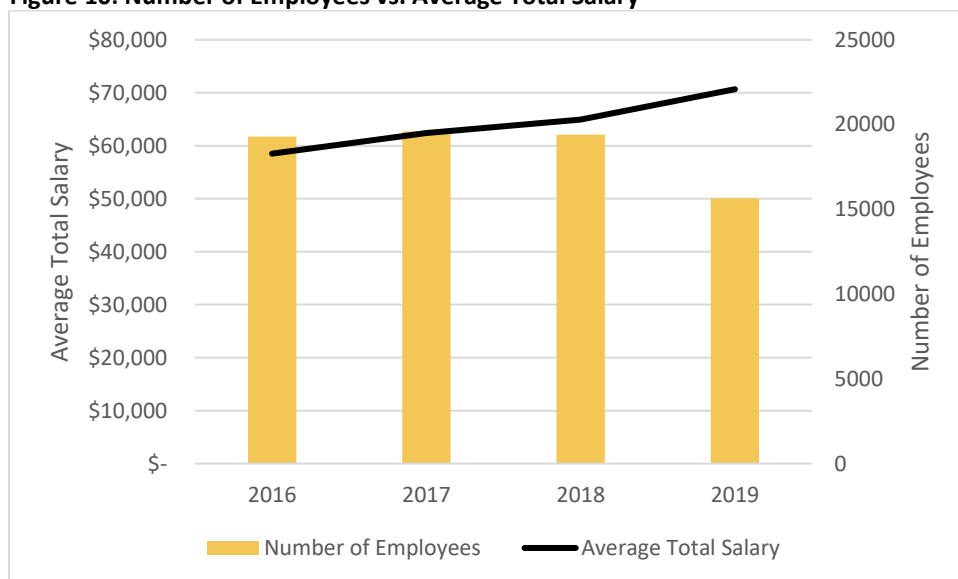
SNDR has invested in third-party software to help bolster its services. Midway through 2020 the company invested in Mastery Logistics Systems in a deal whose specifics were undisclosed. The Mastery Logistics *MasterMind* system is a cloud-based SaaS transportation management system that SNDR is beginning to integrate into existing operations. As previously discussed, the company also partnered with Oracle to create the *Quest* system.

SNDR’s focus on technology puts it at a strong advantage as the industry begins to dabble in autonomous driving. Its current dealings with Tesla, which is a leader in autonomous driving, provides optimistic signs for the future. Wage expense has been an average of 25% of revenue since 2017 and could be substantially cut if self-driving trucks become a mainstay. SNDR was considered a pioneer for the *Quest* system, which shows that management strives to be a leader in technological advancements.

Hiring

The trucking industry is suffering from a shortage of drivers, and Schneider National is no exception. Schneider National has had consistently increased employee compensation for the past four years to attract drivers. Figure 10 lays out total employees versus average employee compensation, including benefits. Average employee compensation is now over \$70,000 a year. Schneider reports that the majority of drivers are now making over \$90,000 a year. Schneider National sponsors driver training facilities to help attract new drivers into the industry. In the second quarter of 2020, SNDR reported lower hiring volumes due to COVID-19, which helped to offset additional costs of hiring and training drivers during a pandemic. Pre-COVID, wage expenses averaged to be about 25% of total revenue yearly. This expense is the second largest, only transportation equipment purchases come in higher. Despite rising wage costs, margins are improving (figure 9), so this may suggest that investments in technology are paying off.

Figure 10: Number of Employees vs. Average Total Salary



Source: Factset

The American Trucking Association (ATA) found that the truck driver shortage could grow to over 160,000 unfilled positions by 2028. The natural market response to any labor shortage is to increase wages and benefits. It is not hard to assume that truck driver wages will continue to increase and become a greater percentage of revenue. More restrictive hours of service regulations have taken affect across the industry in recent years, including capping the maximum daily drive time, maximum hours per week, and the

number of hours driven before requiring a break. SNDR believes that these regulations will become increasingly more restrictive, decreasing per-driver efficiency, and negatively affecting the ability to hire.

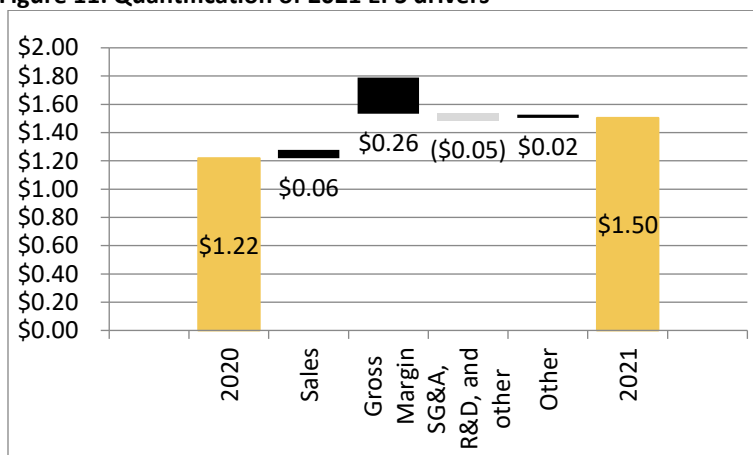
Additionally, drug and alcohol consumption amongst truck drivers is alarmingly high. The American Addiction Center found that over 91% of truck drivers admitted to drinking alcohol while on the job, and over 82.5% admitted to amphetamine use. As of 2016, The Federal Motor Carrier Safety Administration required all regulated employers to report all drug and alcohol violations to a national database. The new FMCSA rules also require employers to query this database for all new employees prior to being allowed to operate a commercial vehicle. More restrictive regulation and higher efficiency drug testing could greatly constrict the hiring ability of experienced drivers. Having to hire more inexperienced drivers will increase driver training costs as well as starting salaries to attract younger people.

Financial Analysis

SNDR has rolled out several cost-saving strategies since the start of COVID-19.

Figure 11 and 12 reflect my beliefs for EPS moving into 2021 and 2022. Into 2021, I believe EPS could reasonably increase 19% from 2020 to \$1.50. I expect modest sales growth will continue, adding \$0.06 to EPS, although I believe it will be slowed by the long-term recovery from COVID-19. I anticipate that margins will increase, adding \$0.26 to EPS. I base this assumption on Schneider’s focus on increasing operating efficiency through technology. I anticipate a small increase in SG&A, R&D, etc. as a percent of sales, which costs EPS \$0.05, as the company focuses on cost saving strategies during what is hopefully the final stages of the pandemic.

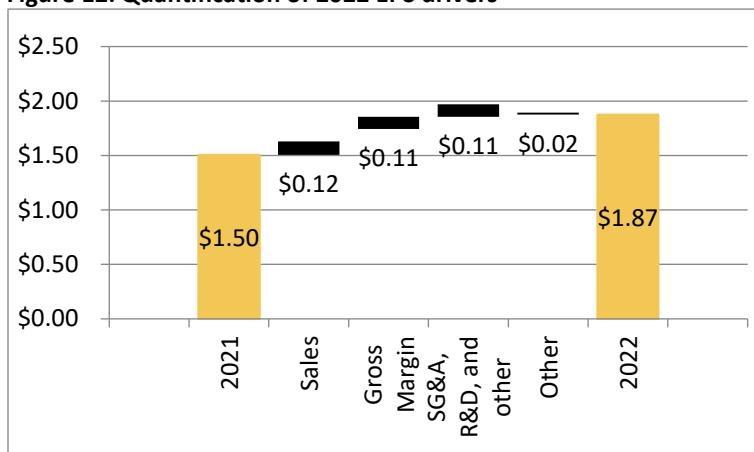
Figure 11: Quantification of 2021 EPS drivers



Source: Company Reports, IMCP

I anticipate 2022 EPS to grow 25% to \$1.87 from 2021. With vaccine efforts making 2021 seem like a return to relative normalcy as far as economic health, SNDR will be able to deliver stronger sales growth in more favorable economic conditions in 2022. This adds \$0.12 to EPS. I anticipate gross margin growth to boost EPS \$0.11 for the same reasons as technology helped in 2021. I anticipate lower SG&A, R&D, etc. as a percent of sales as SNDR’s top-line revenues rise faster than costs and this should add \$0.11 to EPS.

Figure 12: Quantification of 2022 EPS drivers



Source: Company Reports, IMCP

Figure 13 shows how my estimates compare to analyst consensus. In 2020, my assumptions are close to other analysts. In 2021, I am slightly more optimistic; I believe this is due to the speed at which I expect the economy to recover. Looking at past revenue growth, as well as the state of the U.S. recovery, a 4.2% revenue growth rate is reasonable for the company. In 2022, I am more optimistic than analyst consensus. I believe that 2022 will be a strong economic environment as COVID-19 becomes less of a reality and more of a memory. I predict strong demand for many end-market businesses that Schneider services, as Americans look to recapture the freedom they had before the pandemic forced everyone into their homes. Given this, I predict stronger sales growth across segments.

Figure 13: EPS and YoY growth Estimates

	2020E	2021E	2022E
Revenue - Estimate	\$4,490	\$4,677	\$5,021
Growth	-5.4%	4.2%	7.4%
Revenue - Consensus	\$4,553	\$4,890	\$5,153
Growth	-4.1%	7.4%	5.4%
EPS - Estimate	\$1.16	\$1.50	\$1.87
Growth	39.8%	29.3%	24.7%
EPS - Consensus	\$1.16	\$1.53	\$1.67
Growth	39.8%	31.9%	9.2%

Source: Factset, IMCP

Revenues

SNDR Intermodal faces limited competition, only 3 companies including SNDR represent a majority of the market

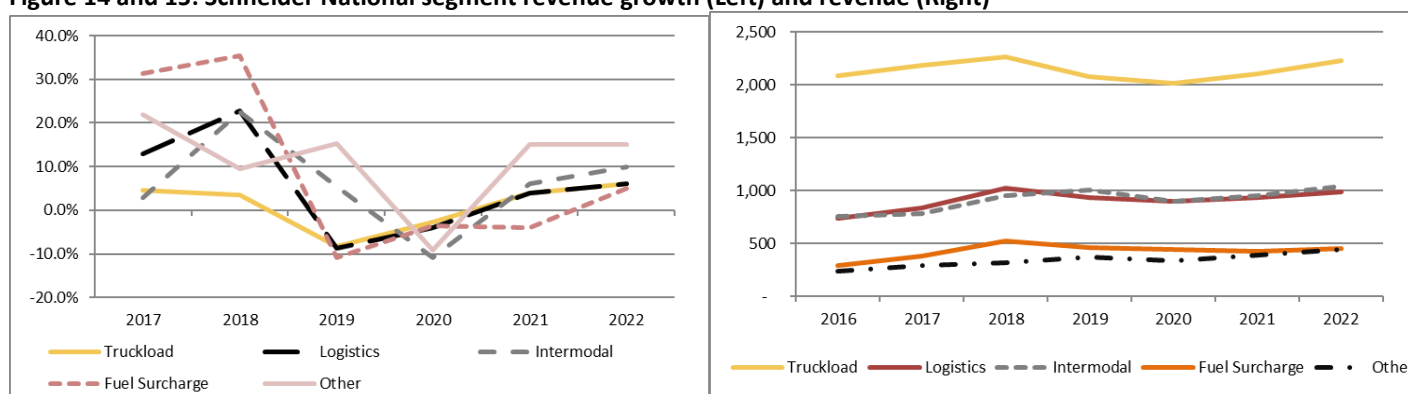
Schneider National revenues are greatly affected by the macroeconomic environment it operates. Facing a slowdown in 2019, the company faced a -4.6% revenue growth. I anticipate revenues to decline again in 2020, driven largely by COVID-19 headwinds. Moving into 2021, I believe that the company will experience a large upturn in sales across all sectors as vaccine deployment leads to U.S. economic recovery and improvement across all business segments.

I forecast the intermodal segment to grow at the fastest rate due to Schneider’s focus and investment in this segment. Intermodal has the highest concentrated market of all of Schneider’s operations, where SNDR along with two other players represent a majority of the market. My forecast anticipates 6% and 10% growth in 2021/2022 growth respectively.

Truckload remains Schneider’s largest revenue source by far. Although the industry faces challenges related to hiring and regulation as discussed previously, the fundamental nature of the business remains strong and allows it to benefit directly from virtually all forms of economic activity in the United States in one way or another. Because of the fragmented nature of this business, pricing pressure can further impact revenues. Schneider has an advantage in the fact that it can rapidly reduce or add capacity through the use of owner-operator contracts as needed. In 2021 I anticipate the truckload segment to grow 4% as sales recover from the slowdown in 2019 and the effects of the pandemic in 2020. In 2022, I anticipate 6% growth in 2022 due to improving economic conditions as well as improving business-specific factors discussed throughout the report.

The last major revenue source is logistics. The need for companies like Schneider to reduce costs for other businesses looking to service complex supply chains will only grow. Logistics services also functions as a way to promote other segment services to existing customers. Revenue from this sector grew 15%, 13%, and 23% in the three years leading up to 2019. This has been a fast-growing segment, and management has not signaled a reason to not expect further growth in the future under ‘normal’ market conditions. In my model, I keep growth estimates at 4% and 6% in 2021/2022 respectively.

Figure 14 and 15: Schneider National segment revenue growth (Left) and revenue (Right)



Source: Company Reports, IMCP

Return on Equity

Schneider National is burdened by a weak ROE relative to the greater industry. With an industry average of 13%, Schneider greatly underperformed in 2019 and into 2020. What we know from figure 16 is that margin growth and contraction is highly correlated to ROE. Also, asset turnover fell. With my belief that Schneider will be able to improve its margins through technological advancement, I anticipate ROE growth throughout the next two years due to margin improvements, but I expect asset turnover to remain at current levels.

Figure 16: ROE breakdown, 2017 – 2022E

3-stage DuPont	2017	2018	2019	2020	2021E	2022E
Net income / sales	8.9%	5.4%	3.1%	4.8%	5.7%	6.6%
Sales / avg assets	1.37	1.42	1.29	1.16	1.14	1.15
ROA	12.2%	7.7%	4.0%	5.6%	6.5%	7.6%
Avg assets / avg equity	2.08	1.74	1.69	1.70	1.70	1.63
ROE	25.4%	13.4%	6.7%	9.5%	11.0%	12.5%

Source: Company Reports, IMCP

Free Cash Flow

SNDR's free cash flow has been inconsistent since its 2017 IPO. 2018 NOPAT was negatively affected by a \$176M income tax provision related to reevaluation of deferred tax liabilities associated with the 2017 Tax Cuts and Jobs Act. 2019 saw a reduction in NFA due to the shutdown of Lodeso, as well of Watkins & Shepard. This move recategorized many fixed assets as assets held-for-sale. Moving into forecasts, I see significant NOPAT growth into the forward years driven largely by margin improvements. NFA will continue to grow as the company looks to expand in all of its existing segments.

I anticipate a growth in FCFF in 2021 driven up by higher NOPAT. Lower NOWC is based on higher operating liabilities as the company looks to retain cash to increase operational capability during the recovery. I expect 2022 to see an increase in NOWC, increasing as the company will return to operating in a normal environment. Overall, FCFF should be greater than \$110 million. After interest, taxes, and repaying debt, \$45-50 million is left for other purposes.

Figure 17: Free cash flows

Free Cash Flow	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22
NOPAT	\$415	\$283	\$238	\$252	\$299	\$362
Growth		-31.8%	-16.1%	6.2%	18.6%	20.8%
NOWC	610	802	974	1,017	999	1,055
Net fixed assets	2,237	2,336	2,303	2,400	2,598	2,789
Total net operating capital	\$2,847	\$3,138	\$3,277	\$3,417	\$3,598	\$3,844
Growth		10.2%	4.4%	4.3%	5.3%	6.8%
- Change in NOWC		192	172	43	(18)	55
- Change in NFA		99	(34)	98	198	191
FCFF		(\$8)	\$99	\$112	\$119	\$115
Growth			1275.1%	13.7%	5.7%	-2.9%
- After-tax interest expense		14	91	36	33	29
+ Net new short-term and long-term debt		(29)	33	(44)	(40)	(40)
FCFE		(\$51)	\$41	\$32	\$46	\$46
Growth			180%	-22%	44%	0%
FCFF per share		(\$0.05)	\$0.56	\$0.63	\$0.67	\$0.65
Growth			1274.4%	13.6%	5.7%	-2.9%
FCFE per share		(\$0.29)	\$0.23	\$0.18	\$0.26	\$0.26
Growth			-179.9%	-22.5%	44.2%	0.0%

Source: Company Reports, IMCP

Valuation

SNDR was valued using multiples and a 3-stage discounting cash flow model. Based on earnings multiples, the stock is inexpensive relative to other firms and is worth \$22 according to my valuation based on price to earnings, which is 6% its current price of \$20.67. Looking at valuation relative to its peers, SNDR is near fair value based on fundamentals.

Trading History

SNDR is currently trading at its low since its IPO relative to the S&P 500. This is partly attributable to a selloff in the larger industry. The industry was facing a cyclical downturn pre-COVID, and the sector is in a

very unusual spot during the pandemic. Because of the diversified mix of end-products, some businesses SNDR service have greatly benefited from new consumer purchasing behavior, while others have struggled. The current NTM P/E of SNDR is 13.9, below the average of 17.1 and its TTM P/E of 19.6.

Figure 18: ANF NTM P/E relative to S&P 500



Source: FactSet

Assuming NTM P/E rises to the average of 17.1 at the end of 2021, it should trade at \$31.98 by the end of the year:

- Price = P/E x EPS = 17.1 x \$1.87 = \$31.98.

Discounting \$31.98 back to today at a 11.8% cost of equity (explained in Discounted Cash Flow section) yields a price of \$28.21. Given SNDR's potential for earnings growth as segments are supporting strong growth, this seems to be a reasonable valuation.

Relative Valuation

SNDR is currently trading at a P/E lower than many of its peers, with a P/E TTM of 19.8 compared to an average of 23.6. The market could be reacting strongly to its weaker ROE relative to its peers. Schneider's revenue has a greater percentage coming from the spot market than many of its peers, making it more susceptible to economic decline. This structure likely drives down its price relative to peers due to the additional riskiness of its business model. Also, the owner-operator model makes it more exposed to a worker shortage as independent operators consider other employers more versus other firms with employees who are less willing to move and give up company benefits.

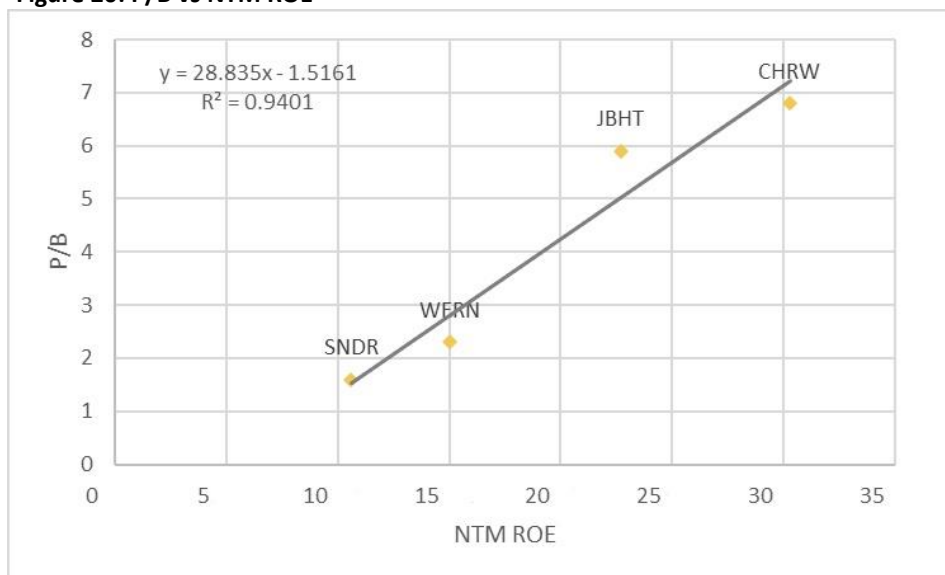
Figure 19: SNDR comparable companies

Ticker	Name	Current Price	Market Value	Price Change						Earnings Growth						LT Deb S&P			LTM Dividend		
				1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	LTG	NTM	2018	2019	2020	2021	Pst 5 year	Beta	Equity	Rating	Yield	Payout
SNDR	SCHNEIDER NATIONAL INC	\$21.26	\$3,770	2.9	(7.1)	(21.8)	(8.1)	(3.5)	(2.6)	6.9	33.2%	-33.3%	-45.4%	39.8%	31.9%	1.9%	0.98	13.1%		1.22%	23.7%
JBHT	HUNT (JB) TRANSPRT SVCS INC	\$137.24	\$14,503	2.1	9.0	0.5	16.7	22.8	17.5	10.0	20.5%	-28.3%	7.2%	-2.9%	32.8%	6.6%	1.00	52.4%	A+	0.80%	23.0%
CHRW	C H ROBINSON WORLDWIDE INC	\$92.93	\$12,633	0.4	5.5	(5.1)	12.9	21.7	18.8	8.7	22.5%	32.5%	-11.4%	-14.6%	19.3%	5.1%	0.67	73.3%	A	2.17%	60.8%
WERN	WERNER ENTERPRISES INC	\$39.61	\$2,737	(0.6)	3.4	(13.3)	(6.0)	11.5	8.8	8.5	29.4%	-16.8%	2.1%	6.3%	-5.9%	11.1%	0.88	15.5%	B+	0.90%	15.9%
Average			\$8,411	1.2	2.7	(9.9)	3.9	13.1	10.7	8.5	26.4%	-11.5%	-11.9%	7.1%	19.5%	6.2%	0.88	38.5%		1.27%	30.9%
Median			\$8,202	1.3	4.5	(9.2)	3.4	16.6	13.2	8.6	26.0%	-22.6%	-4.6%	1.7%	25.6%	5.9%	0.93	33.9%		1.06%	23.4%
SPX	S&P 500 INDEX	\$3,699		0.9	7.4	7.9	18.9	18.8	14.5		20.9%	1.0%	-20.8%	27.5%							
Ticker	Website	2019		P/E								2019		2019		EV/ EBIT	P/CF	Sales Growth			Book Equity
		ROE	P/B	2017	2018	2019	TTM	NTM	2020	2021	NPM	P/S	NM	OM	ROIC			Curre	NTM	STM	
SNDR	http://www.schneider.com	6.3%	1.61	12.5	12.3	26.3	19.8	14.9	18.3	13.9	3.1%	0.79	3.1%	6.7%	5.8%	11.6	7.0	4.3%		3.8%	\$13.21
JBHT	http://www.jbhunt.com	20.2%	5.83	18.6	21.0	24.6	29.6	24.5	29.8	22.4	5.5%	1.58	5.6%	8.2%	15.5%	18.7	13.4	8.1%	2.9%	8.3%	\$23.54
CHRW	http://www.chrobinson.com	30.4%	6.74	25.0	17.8	18.7	27.7	22.6	26.0	21.8	3.7%	0.83	3.8%	5.2%	19.4%	15.0	23.0	8.5%		2.6%	\$13.78
WERN	http://www.werner.com	13.9%	2.32	13.8	12.7	15.3	17.5	13.6	15.7	16.6	6.7%	1.11	6.8%	8.3%	12.6%	13.9	6.1	4.6%		2.9%	\$17.08
Average		17.7%	4.13	17.5	15.9	21.2	23.6	18.9	22.4	18.7	4.7%	1.08	4.8%	7.1%	13.3%	14.8	12.4	6.4%	2.9%		
Median		17.1%	4.07	16.2	15.2	21.6	23.7	18.7	22.1	19.2	4.6%	0.97	4.7%	7.5%	14.1%	14.5	10.2	6.4%	2.9%		

Source: FactSet, IMCP

A more thorough analysis of P/B and ROE is shown in figure 20. The calculated R-squared of the regression indicates that 94% of a sampled firm's P/B is explained by its NTM ROE. SNDR has the lowest P/B and ROE of this grouping, and according to this measure is very close to a correct valuation. However, the market does not seem to recognize that WERN's and SNDR's ROE come with much lower leverage. SNDR's long-term debt to equity is only 13.15, and WERN is 15.55. This compares with 52.45 for JBHT, and 73.35 for CHRW. So, while SNDR's ROE is lower, it is a lower financial risk ROE and perhaps it should command a higher P/B. However, given the instability the trucking industry has faced during COVID-19 and the cyclical downturn even before, I believe that ROE will become more highly valued in the coming months during the pandemic and eventual economic recovery.

Figure 20: P/B vs NTM ROE



Source: Factset, IMCP

For a final comparison, I created a composite ranking of several valuation and fundamental metrics. Since the variables have different scales, each was converted to a percentile before calculating the composite score. A weighting of 20% 2021 EPS growth, 40% 2019 ROE, 20% 2019 NPM, and 20% past five-year sales growth is compared against an equal weighting of the P/B, P/S, and P/CF ratios. The regression line

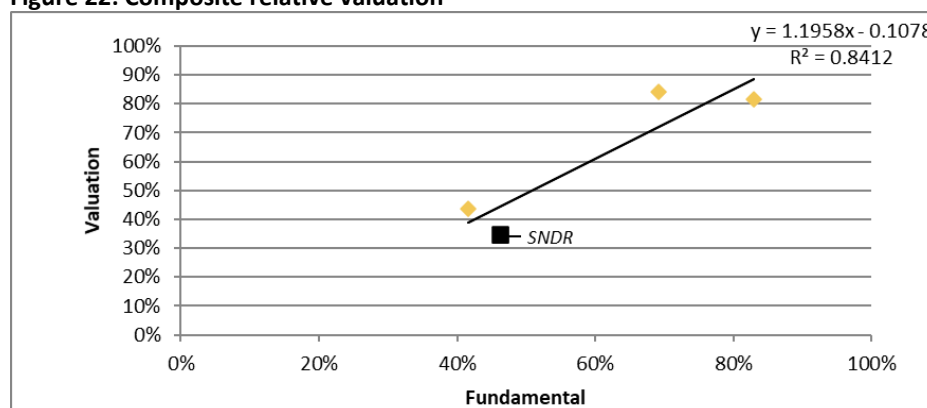
returned an R-squared of 0.84. You can see in figure 22 that SNDR is below the line, meaning the stock is somewhat undervalued.

Figure 21: Composite valuation, % of range

		Fundamental						Valuation Percent of Max		
Ticker	Name	Weight		20.0%	40.0%	20.0%	20.0%	33.3%	33.3%	33.3%
		Fund	Value	Earnings Growth	2019	2019	Sales Growth	P/B	P/S	P/CF
				2021	ROE	NPM	pst 5 yr			
SNDR	SCHNEIDER NATIONAL INC	46%	35%	97%	21%	46%	46%	24%	50%	31%
JBHT	HUNT (JB) TRANSPRT SVCS INC	83%	82%	100%	66%	82%	100%	86%	100%	58%
CHRW	C H ROBINSON WORLDWIDE INC	69%	84%	59%	100%	56%	31%	100%	52%	100%
WERN	WERNER ENTERPRISES INC	42%	44%	-18%	46%	100%	35%	34%	70%	27%

Source: FactSet, IMCP

Figure 22: Composite relative valuation



Source: FactSet, IMCP

Discounted Cash Flow Analysis

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

For the purpose of this analysis, the company’s cost of equity was calculated to be 11.8% 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 0.90%.
- A one-year beta of 1.2 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 11.8% ($0.90 + 1.2 (10.0 - 0.90)$).

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 \$0.30 and \$0.66, respectively. Discounting these cash flows, using the cost of equity calculated above, results in a value of \$0.82 per share. Thus, stage one of this discounted cash flow analysis contributes \$0.82 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 11.8% cost of equity. I assume 1% sales growth in 2023, rising to 2% through 2027. The ratio of NOPAT/S will grow from 7.25% to 7.8% in 2027 as a result of

increased operating efficiency. I do not assume any share growth or buybacks throughout these years. I assume capital turnover ratios to stay at 2022 levels.

Figure 23: FCFE and discounted FCFE, 2021 – 2027

	2021	2022	2023	2024	2025	2026	2027
FCFE	\$0.33	\$0.66	\$1.52	\$1.30	\$1.40	\$1.76	\$1.89
Discounted FCFE	\$0.29	\$0.53	\$1.08	\$0.83	\$0.80	\$0.90	\$0.87

Added together, these discounted cash flows total \$5.30

Stage Three – Net income for the years 2021 – 2027 is calculated based upon the same margin and growth assumptions used to determine FCFE in stage two. EPS is expected to grow from \$1.22 in 2020 to \$2.28 in 2027.

Figure 24: EPS estimates for 2021 – 2027

	2020	2021	2022	2023	2024	2025	2026	2027
EPS	\$ 1.22	\$ 1.50	\$ 1.87	\$ 1.69	\$ 1.83	\$ 1.95	\$ 2.14	\$ 2.28

Stage three of the model requires an assumption regarding the company's terminal price-to-earnings ratio. For the purpose of this analysis, the P/E ratio will return to a historical average of SNDR comps. I assume that Schneider will not have a substantially different business model by 2027 compared to its peers. While the peers and SNDR have an average TTM P/E of 24, this is artificially high due to depressed earnings. In 2016 the P/E was 17.5 and in 2018 it was 15.5. Thus, 16 seems reasonable.

Given the assumed terminal earnings per share of \$2.28 and a price to earnings ratio of 16, a terminal value of \$36.48 per share is calculated. Using the 11.8% cost of equity, this number is discounted back to a present value of \$16.69.

Total Present Value – given the above assumptions and utilizing a three stage discounted cash flow model, an intrinsic value of \$21.99 is calculated (0.82 + 4.48 + 16.69). Given SNDR's current price of \$20.43, this model indicates that the stock is undervalued.

Scenario Analysis

Valuing SNDR is complex and difficult in the fact that it is dependent on so many macro factors. Additionally, it is near impossible to be sure of the outcomes of Schneider's development plans, including but not limited to the advent of autonomous driving. With the entire industry facing challenges and opportunities, as well as its cyclical nature, there will always be risks.

Sales growth is largely associated with the economic health of the North American economy. This variable is extremely hard to predict for one year, much less seven. Changes in these variables will greatly affect the target price.

In a bullish scenario, I could reasonably see terminal P/E rising to 20x, the P/E of SNDR in 2027. In this scenario the beta of the company falls to 1.0. This results in a terminal value of \$29.10.

Figure 25: SNDR Bull Scenario

Summary (using P/E multiple for terminal value)		
First stage	\$0.84	Present value of first 2 year cash flow
Second stage	\$4.86	Present value of year 3-7 cash flow
Third stage	\$23.40	Present value of terminal value P/E
Value (P/E)	\$29.10	

Source: IMCP

In a bearish scenario, P/E could fall as low as 13x, which the aggregate of comps has reached in the past. My base case does not account for the possibility of recession. In this scenario, I also model out beta rising to 1.30. This results in a terminal value of \$17.92.

Figure 26: SNDR Bear Scenario

Summary (using P/E multiple for terminal value)		
First stage	\$0.81	Present value of first 2 year cash flow
Second stage	\$4.30	Present value of year 3-7 cash flow
Third stage	\$12.81	Present value of terminal value P/E
Value (P/E)	\$17.92	

Source: IMCP

Business Risks

Although I have many reasons to be optimistic about Schneider National, there are several good reasons why I predict somewhat unstable earnings growth.

Unfavorable market conditions:

The trucking industry as a whole is largely dependent on the markets on which individual companies choose to operate. Larger excess supply of freight capacity during economic downturns creates downwards pressure on pricing.

Extremely competitive market:

There are hundreds, if not thousands of trucking companies operating throughout the U.S. The ability to offer not only a wide range of services but also competitive freight rates creates a great burden for trucking operators. Many large customers also have the ability to insource their shipping operations, potentially taking away market opportunities. This has happened to Schneider in the past.

Customer Concentration:

Schneider generates a portion of revenues through a small number of customers. If a number of these companies were to leave, this could greatly affect future revenue growth. It should be noted that no single customer currently accounts for at least 10% of revenue.

Driver Shortages:

The trucking industry suffers through prolonged periods of driver shortages. Increased hiring regulations and a limited pool of qualified drivers could create further challenges for SNDR. Schneider has been in the national news for its history of raising wages to attract new and experienced drivers.

Loss of brand identity:

For any trucking company, the greatest marketing tool at its disposal is the value associated with its name. Many different events could greatly affect the way SNDR is perceived by its customers.

Dependance on third-party rail operators:

Schneider does not own any rail operations to service its intermodal segment. Rather it relies on rail companies, primarily BNSF Railway and CSX Transportation, to fulfill these shipments. BNSF has a contract with a competitor of SNDR that guarantees said competitor preferential treatment of its shipments, limiting profitability of the intermodal segment.

Dependance on third-party operations to fulfill logistics services:

SNDR depends on third-party truckload carriers, ocean carriers, rail operators, and airlines to fulfill the demands of logistics service customers. Schneider must find and retain financially sound carriers to enter into contracts to support its services.

Appendix 1: Porter's 5 Forces

Threat of New Entrants – Medium

The trucking industry is made up of many small business owners competing to market share as well as relatively large operators like Schneider. That being said, it would take a very long time for a new business to grow to the level of being a serious competitor to Schneider given its scale of operations, well established supply chain, and third-party contracts.

Threat of Substitutes – High

There are many competitors in the transportation industry. SNDR is constantly under pressure to offer competitive freight rates, increased efficiency, and increased breadth of service offerings to remain a competitive player in its industry.

Supplier Power – High

Schneider's third-party contractors are used to help provide a large amount of services and this puts them at a heavy disadvantage. Specifically, having to provide rail service for its intermodal segment puts it largely at the will of these suppliers.

Buyer Power – Medium

There are many substitutes to SNDR. However, it is difficult and resource consuming for a company to switch its supply chain system. Schneider's Logistics services further locks in its buyers and makes it harder to abandon SNDR's services.

Intensity of Competition – High

There are many large and small companies looking to take market share away from SNDR. Although the company is one of the largest in terms of market share, the structure of the trucking industry allows for many small and large players be competitive in capturing demand.

Appendix 2: SWOT Analysis

Strengths	Weaknesses
Diversified revenue sources Well established brand Focus on innovation	Low return on equity Cyclical industry Unstable revenue
Oppurtunites	Threats
Automation Segment growth China exposure	Hiring difficulties High pricing pressure COVID-19 lockdowns

Appendix 3: Income Statement

Items	Dec-17	Dec-18	Dec-19	Dec-20E	Dec-21E	Dec-22E
Sales	\$4,383	\$4,976	\$4,747	\$4,490	\$4,677	\$5,021
Direct costs	3,719	4,164	4,018	3,781	3,882	4,142
Gross Margin	665	812	729	709	795	879
SG&A, R&D, D&A, and other	385	428	409	394	421	427
EBIT	280	384	320	315	374	452
Interest	17	19	122	45	41	36
EBT	263	365	198	270	333	416
Taxes	(127)	96	51	54	67	83
Income	390	269	147	216	267	332
Other	-	-	-	(0)	-	-
Net income	390	269	147	216	267	332
Basic Shares	171.2	177.0	177.1	177.3	177.3	177.3
Fully Diluted Shares	171.3	177.2	177.4	177.7	177.7	177.7
EPS	\$2.28	\$1.52	\$0.83	\$1.22	\$1.50	\$1.87
EPS Fully Diluted	\$2.28	\$1.52	\$0.83	\$1.22	\$1.50	\$1.87
DPS	\$0.15	\$0.23	\$0.24	\$0.25	\$0.26	\$0.26

Appendix 4: Balance Sheet

Items	Dec-17	Dec-18	Dec-19	Dec-20E	Dec-21E	Dec-22E
Cash	239	379	552	700	672	703
Operating assets ex cash	814	894	806	864	898	964
Operating assets	1,053	1,273	1,357	1,564	1,570	1,667
Operating liabilities	443	471	383	547	571	613
NOWC	610	802	974	1,017	999	1,055
NOWC ex cash (NWC)	371	423	423	317	327	351
NFA	2,237	2,336	2,303	2,400	2,598	2,789
<i>Invested capital</i>	<i>\$2,847</i>	<i>\$3,138</i>	<i>3,277</i>	<i>\$3,417</i>	<i>\$3,598</i>	<i>\$3,844</i>
Marketable securities	42	51	48	50	50	50
<i>Total assets</i>	<i>\$3,331</i>	<i>\$3,660</i>	<i>3,708</i>	<i>\$4,014</i>	<i>\$4,218</i>	<i>\$4,507</i>
S-T and L-T debt and financing leases	\$440	\$411	\$444	\$400	\$360	\$320
Other liabilities	558	646	645	762	762	762
Debt/equity-like securities	-	-	-	-	-	-
Equity	1,890	2,132	2,236	2,305	2,526	2,812
<i>Total supplied capital</i>	<i>\$2,888</i>	<i>\$3,189</i>	<i>\$3,325</i>	<i>\$3,467</i>	<i>\$3,648</i>	<i>\$3,894</i>
<i>Total liabilities and equity</i>	<i>\$3,331</i>	<i>\$3,660</i>	<i>\$3,708</i>	<i>\$4,014</i>	<i>\$4,218</i>	<i>\$4,507</i>

Appendix 5: Sales Forecast

Items	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22
Sales	4,047	4,383	4,976	4,747	4,490	4,677	5,021
<i>Growth</i>		8.3%	13.5%	-4.6%	-5.4%	4.2%	7.4%
Truckload	2,091	2,187	2,265	2,077	2,020	2,101	2,227
<i>Growth</i>		4.6%	3.6%	-8.3%	-2.7%	4.0%	6.0%
<i>% of sales</i>	51.7%	49.9%	45.5%	43.8%	45.0%	44.9%	44.3%
Logistics	738	834	1,024	935	898	934	990
<i>Growth</i>		13.0%	22.8%	-8.7%	-4.0%	4.0%	6.0%
<i>% of sales</i>	18.2%	19.0%	20.6%	19.7%	20.0%	2.0%	19.7%
Intermodal	758	780	956	1,008	898	952	1,047
<i>Growth</i>		2.9%	22.6%	5.4%	-10.9%	6.0%	10.0%
<i>% of sales</i>	18.7%	17.8%	19.2%	21.2%	20.0%	20.4%	6.0%
Fuel Surcharge	294	386	523	466	449	431	453
<i>Growth</i>		31.3%	35.5%	-10.9%	-3.6%	-4.0%	5.0%
<i>% of sales</i>	7.3%	8.8%	10.5%	9.8%	10.0%	9.2%	6.0%
Inter-Segment Elim	(75)	(98)	(114)	(110)	(112)	(128)	(141)
<i>Growth</i>		30.7%	16.3%	-3.5%	1.8%	14.5%	10.0%
<i>% of sales</i>	-1.9%	-2.2%	-2.3%	-2.3%	-2.5%	-2.7%	-2.8%
Other	241	294	322	371	337	388	446
<i>Growth</i>		22.0%	9.5%	15.2%	-9.2%	15.0%	15.0%
<i>% of sales</i>	6.0%	6.7%	6.5%	7.8%	7.5%	8.3%	8.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
United States	4,046	4,383	4,976	4,747	4,489	4,677	5,021
<i>Growth</i>		8.3%	13.5%	-4.6%	-5.4%	4.2%	7.4%
<i>% of sales</i>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix 6: Ratios

Items	Dec-17	Dec-18	Dec-19	Dec-20E	Dec-21E	Dec-22E
Profitability						
Gross margin	15.2%	16.3%	15.4%	15.8%	17.0%	17.5%
Operating (EBIT) margin	6.4%	7.7%	6.7%	7.0%	8.0%	9.0%
Net profit margin	8.9%	5.4%	3.1%	4.8%	5.7%	6.6%
Activity						
NFA (gross) turnover	2.01	2.18	2.05	1.91	1.87	1.86
Total asset turnover	1.37	1.42	1.29	1.16	1.14	1.15
Liquidity						
Op asset / op liab	2.38	2.70	3.54	2.86	2.75	2.72
NOWC Percent of sales	12.1%	14.2%	18.7%	22.2%	21.6%	20.5%
Solvency						
Debt to assets	13.2%	11.2%	12.0%	10.0%	8.5%	7.1%
Debt to equity	23.3%	19.3%	19.9%	17.4%	14.3%	11.4%
Other liab to assets	16.8%	17.6%	17.4%	19.0%	18.1%	16.9%
Total debt to assets	30.0%	28.9%	29.4%	28.9%	26.6%	24.0%
Total liabilities to assets	43.3%	41.7%	39.7%	42.6%	40.1%	37.6%
Debt to EBIT	1.57	1.07	1.39	1.27	0.96	0.71
EBIT/interest	16.47	20.21	2.62	6.95	9.20	12.42
Debt to total net op capital	15.5%	13.1%	13.5%	11.7%	10.0%	8.3%
ROIC						
NOPAT to sales	9.5%	5.7%	5.0%	5.6%	6.4%	7.2%
Sales to NWC	12.67	12.53	11.22	12.14	14.52	14.79
Sales to NFA	2.01	2.18	2.05	1.91	1.87	1.86
Sales to IC ex cash	1.73	1.85	1.73	1.65	1.66	1.66
Total ROIC ex cash	16.4%	10.5%	8.7%	9.3%	10.6%	11.9%
NOPAT to sales	9.5%	5.7%	5.0%	5.6%	6.4%	7.2%
Sales to NOWC	8.26	7.05	5.34	4.51	4.64	4.89
Sales to NFA	2.01	2.18	2.05	1.91	1.87	1.86
Sales to IC	1.61	1.66	1.48	1.34	1.33	1.35
Total ROIC	15.3%	9.5%	7.4%	7.5%	8.5%	9.7%
NOPAT to sales	9.5%	5.7%	5.0%	5.6%	6.4%	7.2%
Sales to EOY NWC	11.81	11.76	11.23	14.16	14.29	14.29
Sales to EOY NFA	1.96	2.13	2.06	1.87	1.80	1.80
Sales to EOY IC ex cash	1.68	1.80	1.74	1.65	1.60	1.60
Total ROIC using EOY IC ex cash	15.9%	10.3%	8.7%	9.3%	10.2%	11.5%
NOPAT to sales	9.5%	5.7%	5.0%	5.6%	6.4%	7.2%
Sales to EOY NOWC	7.19	6.20	4.87	4.41	4.68	4.76
Sales to EOY NFA	1.96	2.13	2.06	1.87	1.80	1.80
Sales to EOY IC	1.54	1.59	1.45	1.31	1.30	1.31
Total ROIC using EOY IC	14.6%	9.0%	7.3%	7.4%	8.3%	9.4%
ROE						
5-stage						
EBIT / sales	6.4%	7.7%	6.7%	7.0%	8.0%	9.0%
Sales / avg assets	1.37	1.42	1.29	1.16	1.14	1.15
EBT / EBIT	93.9%	95.1%	61.9%	85.6%	89.1%	91.9%
Net income / EBT	148.3%	73.7%	74.2%	80.0%	80.0%	80.0%
ROA	12.2%	7.7%	4.0%	5.6%	6.5%	7.6%
Avg assets / avg equity	2.08	1.74	1.69	1.70	1.70	1.63
ROE	25.4%	13.4%	6.7%	9.5%	11.0%	12.5%
3-stage						
Net income / sales	8.9%	5.4%	3.1%	4.8%	5.7%	6.6%
Sales / avg assets	1.37	1.42	1.29	1.16	1.14	1.15
ROA	12.2%	7.7%	4.0%	5.6%	6.5%	7.6%
Avg assets / avg equity	2.08	1.74	1.69	1.70	1.70	1.63
ROE	25.4%	13.4%	6.7%	9.5%	11.0%	12.5%
Payout Ratio	6.5%	15.1%	28.9%	20.4%	17.2%	13.8%
Retention Ratio	93.5%	84.9%	71.1%	79.6%	82.8%	86.2%
Sustainable Growth Rate	23.7%	11.4%	4.8%	7.6%	9.1%	10.7%

Appendix 7: DCF Model

Year ending January	First Stage			Second Stage				
	2020	2021	2022	2023	2024	2025	2026	2027
Sales Growth	-5.4%	4.2%	7.4%	1.0%	3.0%	3.0%	2.0%	2.0%
NOPAT / S	5.6%	6.4%	7.2%	6.5%	6.8%	7.0%	7.5%	7.8%
S / NWC	14.16	14.29	14.29	14.29	14.29	14.29	14.29	14.29
S / NFA (EOY)	1.87	1.80	1.80	1.80	1.80	1.80	1.80	1.80
S / IC (EOY)	1.65	1.60	1.60	1.60	1.60	1.60	1.60	1.60
ROIC (EOY)	9.3%	10.2%	11.5%	10.4%	10.9%	11.2%	12.0%	12.5%
ROIC (BOY)	11.0%	12.4%	12.4%	10.5%	11.2%	11.5%	12.2%	12.7%
Share Growth	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sales	\$4,490	\$4,677	\$5,021	\$5,071	\$5,223	\$5,380	\$5,488	\$5,597
NOPAT	\$252	\$299	\$362	\$330	\$355	\$377	\$412	\$437
Growth	6.2%	18.6%	20.8%	-8.8%	7.8%	6.0%	9.3%	6.1%
- Change in NWC	-106	10	24	3	11	11	8	8
NWC EOY	317	327	351	355	366	376	384	392
Growth NWC	-25.0%	3.3%	7.4%	1.0%	3.0%	3.0%	2.0%	2.0%
- Chg NFA	98	198	191	28	85	87	60	61
NFA EOY	2,400	2,598	2,789	2,817	2,902	2,989	3,049	3,110
Growth NFA	4.2%	8.3%	7.4%	1.0%	3.0%	3.0%	2.0%	2.0%
Total inv in op cap	-8	209	215	31	95	98	67	69
Total net op cap	2717	2926	3141	3172	3267	3365	3433	3501
FCFF	\$261	\$91	\$146	\$298	\$260	\$279	\$344	\$368
% of sales	5.8%	1.9%	2.9%	5.9%	5.0%	5.2%	6.3%	6.6%
Growth		-65.2%	61.4%	104.0%	-12.8%	7.1%	23.6%	6.9%
- Interest (1-tax rate)	36	33	29	29	30	31	32	32
Growth	-59.9%	-10.4%	-10.5%	1.0%	3.0%	3.0%	2.0%	2.0%
FCFE w/o debt	\$224	\$58	\$117	\$269	\$230	\$247	\$312	\$336
% of sales	5.0%	1.2%	2.3%	5.3%	4.4%	4.6%	5.7%	6.0%
Growth		-74.1%	101.6%	129.6%	-14.6%	7.7%	26.3%	7.4%
/ No Shares	177.3	177.3	177.3	177.3	177.3	177.3	177.3	177.3
FCFE	\$1.27	\$0.33	\$0.66	\$1.52	\$1.30	\$1.40	\$1.76	\$1.89
Growth		-74.1%	101.6%	129.6%	-14.6%	7.7%	26.3%	7.4%
* Discount factor		0.89	0.80	0.72	0.64	0.57	0.51	0.46
Discounted FCFE		\$0.29	\$0.53	\$1.08	\$0.83	\$0.80	\$0.90	\$0.87
Terminal value P/S								
Sales	\$4,490	\$4,677	\$5,021	\$5,071	\$5,223	\$5,380	\$5,488	\$5,597
Growth	-5.4%	4.2%	7.4%	1.0%	3.0%	3.0%	2.0%	2.0%
Net profit margin	4.8%	5.7%	6.6%	5.9%	6.2%	6.4%	6.9%	7.2%
Terminal P/S								0.80
* Terminal SPS								\$31.57
Terminal value								\$25.26
* Discount factor								0.46
Discounted terminal value								\$11.55
Terminal value P/B								
Book value	\$2,305	\$2,526	\$2,812	\$3,066	\$3,345	\$3,644	\$3,977	\$4,331
Growth	3.1%	9.6%	11.3%	9.0%	9.1%	8.9%	9.1%	8.9%
ROE (EOY book)	9.4%	10.6%	11.8%	9.8%	9.7%	9.5%	9.6%	9.3%
Net income	\$216	\$267	\$332	\$300	\$325	\$345	\$380	\$404
Dividends	\$44	\$46	\$46	\$46	\$46	\$47	\$47	\$50
Growth	3.5%	4.5%	0.0%	0.0%	0.0%	2.2%	0.0%	6.4%
Shares	177.3	177.3	177.3	177.3	177.3	177.3	177.3	177.3
Price	\$22.88	\$22.88	\$22.88	\$20.67	\$22.36	\$23.78	\$26.14	\$27.82
Growth		0.0%	0.0%	-9.7%	8.2%	6.3%	9.9%	6.4%
Net issuance		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Terminal P/B								2.00
* Terminal BPS								\$24.43
Terminal value								\$48.85
* Discount factor								0.46
Discounted terminal value								\$22.35
Terminal value P/E								
Net income	\$216	\$267	\$332	\$300	\$325	\$345	\$380	\$404
% of sales	4.8%	5.7%	6.6%	5.9%	6.2%	6.4%	6.9%	7.2%
EPS	\$1.22	\$1.50	\$1.87	\$1.69	\$1.83	\$1.95	\$2.14	\$2.28
Growth	46.8%	23.5%	24.6%	-9.7%	8.2%	6.3%	9.9%	6.4%
Terminal P/E								16.00
* Terminal EPS								\$2.28
Terminal value								\$36.47
* Discount factor								0.46
Discounted terminal value								\$16.69
Summary (using P/E multiple for terminal value)								
Value (P/E)								\$21.99