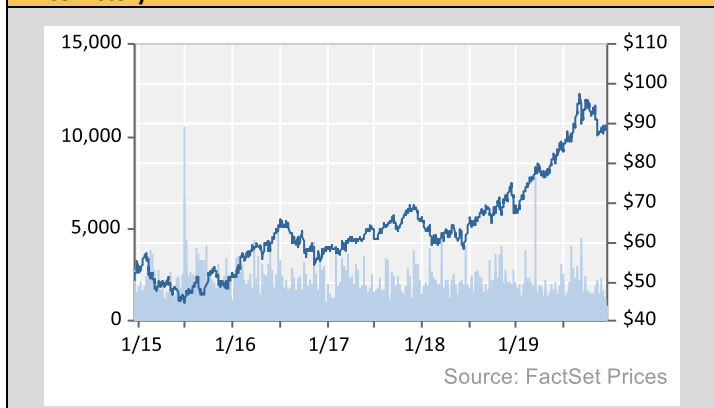


**Recommendation: Sell**

Current Price	\$96	---	Ticker	WEC
1 Year Bear	\$68	-16%	Sh. Out. (\$M)	315
1 Year Base	\$76	-11%	M.Cap. (\$M)	28
1 Year Bull	\$87	0%	EV (\$M)	39

**Price History**

	5Y	3Y	2Y	LTM	YTD	3M	1M
Return	77%	59%	28%	19%	29%	-2%	3%

**Financials**

	2015	2016	2017	2018	2019	2020E	2021E
Sales(\$B)	5.9	7.5	7.6	7.7	7.8	8.1	8.2
Gr. %	18.6%	26.1%	2.4%	0.4%	2.0%	3.6%	1.4%
Cons.	-	-	-	-	-	4.3%	-0.6%
Ind.	-5.3%	-4.8%	1.8%	-4.9%	1.4%	3.6%	0.9%
EPS (\$)	2.36	2.98	3.82	3.36	3.53	3.75	3.97
Gr. %		26.1%	28.2%	-12%	5.0%	6.2%	5.9%
Cons.	-	-	-	-	-	6.2%	6.9%
Ind.	-1.0%	7.0%	0.6%	4.7%	4.5%	4.9%	4.9%

**Ratios**

	2015	2016	2017	2018	2019	2020E	2021E
NPM	10.8%	12.6%	15.8%	13.8%	14.2%	14.5%	15.1%
Ind.	9.0%	8.8%	10.8%	9.5%	11.1%	--	--
ROE	9.8%	10.7%	13.1%	11.0%	11.2%	11.4%	11.7%
Ind.	10.1%	10.7%	10.3%	10.2%	10.7%	--	--
ROA	2.8%	3.1%	3.8%	3.2%	3.2%	3.2%	3.3%
Ind.	2.5%	0.4%	2.9%	2.4%	2.8%	--	--
A T/O	0.26	0.24	0.24	0.24	0.24	0.24	0.23
A/E	3.39	3.37	3.34	3.42	3.42	3.49	3.51

**Valuation**

	2015	2016	2017	2018	2019	2020E	2021E
P/E	21.93	19.81	17.53	20.74	25.15	23.74	22.20
Ind.	17.74	22.34	20.63	15.46	18.67	20.77	19.55
P/S	2.36	2.49	2.75	2.86	3.58	--	--
P/B	1.87	2.07	2.22	2.23	2.77	--	--
P/CF	10.82	8.84	10.13	8.98	13.17	--	--
EV/EBITDA	13.51	11.53	12.40	14.80	15.68	--	--
D/P	3.4%	3.4%	3.1%	3.2%	2.3%	--	--

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Utility

**WEC Energy Group, Inc.****Summary**

I recommend a sell rating with a target of \$76. Although WEC has increasing sales and capex, much of this growth is fueled with debt. In comparison to the utility sector, WEC has high valuation multiples; therefore, has already priced in future growth. The company has been successful; however, the stock is overvalued based on relative and DCF analysis.

**Key Drivers**

- Government regulation: The utility sector within the United States is mostly regulated (firms have allowed ROEs that are subject to change). Companies within this sector are regulated by commissions in their regions and can bring forward rate cases that ultimately determine ROEs. WEC has recently settled a rate case to increase allowed ROE, but has no current cases.
- Capital expenditures: This fuels the growth. More assets means more equity for regulated ROE which generates earnings based on an allowed average asset base. Management plans to grow capital expenditures by 7% each year through 2024.
- Clean energy infrastructure: WEC has made multiple deals with wind farms for the next decade giving them an 80% ownership in the energy created (12% of current energy capacity).
- Macroeconomic trends: The utility sector is inversely correlated with long-term interest rates. As interest rates decrease, investors look for other defensive, safe return investments. Interest rates fell in 2019 resulting in good returns for WEC and the sector.

**Valuation**

Using a relative valuation approach, WEC Energy Group appears to be overvalued in comparison to the United States utility industry. DCF analysis using three valuation multiples, also implies the stock is overvalued and is worth \$76. So WEC is overvalued as it currently trades at \$96.

**Risks**

- Governmental regulation
- Uncertainty regarding future interest rates
- Changes in commodity prices
- Weather

## Company Overview

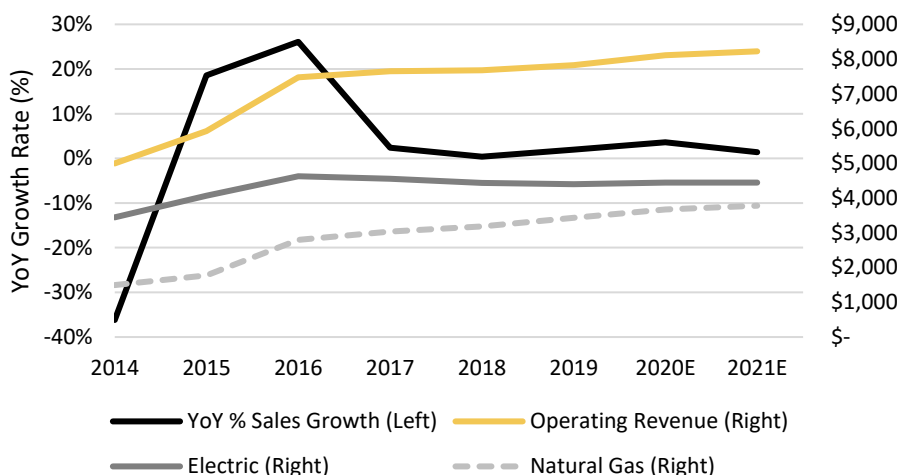
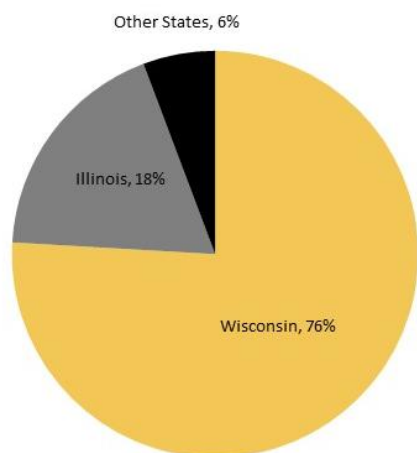
WEC is a holding company based in Wisconsin, engaged mostly in the generation and distribution of electricity and natural gas

Founded in 1986, WEC Energy Group, Inc. (WEC) is a diversified holding company headquartered in Milwaukee, WI. Its subsidiaries engage in the generation of regulated electricity and natural gas as well as nonregulated renewable energy. The firm acquired 100% of the outstanding common shares of Integrys and changed its name to WEC Energy Group, Inc. on June 29, 2015. Operating through the states of Wisconsin, Illinois, Minnesota, and Upper Michigan, WEC owns three other major holding companies (Wisconsin Energy Corporation Bluewater Natural Gas Holding, LLC, Integrys Holding, Inc., and ATC Holding, LLC). Among these holdings, companies such as We Energies, Wisconsin Public Service, Peoples Gas, North Shore Gas, Minnesota Energy Resources, Michigan Gas Utilities, Upper Michigan Energy Resources, Bluewater Gas Storage, and Wispark, etc. make up most of the company’s revenues. WEC ranks fifth in the Russell 3000 by market cap for multi-utilities and tenth for all utilities. The company serves over 1.6 million electric customers and 2.9 million natural gas customers through 70,100 miles of electric distribution and 49,000 miles of gas distribution.

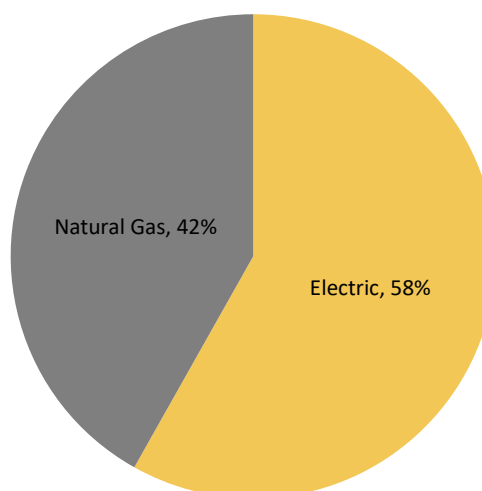
WEC Energy Group generates 76% of its revenue from its subsidiaries in Wisconsin, but records revenues from three other states:

- 1) Wisconsin: We Energies provides 2.2 million customers with electric and natural gas services; Wisconsin Public Service also brings electric and natural gas to 776,000 customers.
  - 2018 sales YoY growth rate – -0.6%
- 2) Illinois: 18% of revenues for the company comes from Peoples Gas (PGL) and North Shore Gas (NSG), both of which revolve around Chicago.
  - 2018 sales YoY growth rate – 3.3%
- 3) Minnesota: Minnesota Energy Resources creates less than 4% of the firm’s revenue delivering natural gas to 238,000 customers within MN.
  - 2018 sales YoY growth rate – 2%
- 4) Michigan: Michigan Gas Utilities and Upper Michigan Energy Resources deliver natural gas and electricity to 220,000 customers and makes up only 2% of the firm’s revenues.
  - 2018 sales YoY growth rate – 4.6%

Figures 1 & 2: Revenue sources by states – left; revenue history (in millions) and YoY growth rate – right



Source: Company Reports

**Figures 3: Revenue segments (2018)**

Natural gas is the main driver of revenue growth

Source: FactSet

The revenue for the firm is split into two segments shown in figure three, natural gas and electric. Natural gas sales have been consistently growing over the last three years; whereas, electric sales have been steadily decreasing (figure 2). In 2020 and 2021, I predict sales of natural gas to increase 7.0% and 3.0% in its respective years and electric revenues to remain constant resulting in a 3.6% and 1.4% increase in overall revenues over the same years. The natural gas segment will rise to 46% of revenue from 42% in 2018.

## Business/Industry Drivers

Though several factors may contribute to WEC Energy Group's future success, the following are the most important business drivers:

- 1) Regulation
- 2) Capital Expenditures
- 3) Clean Energy Trends and Infrastructure Investment
- 4) Macroeconomic Trends

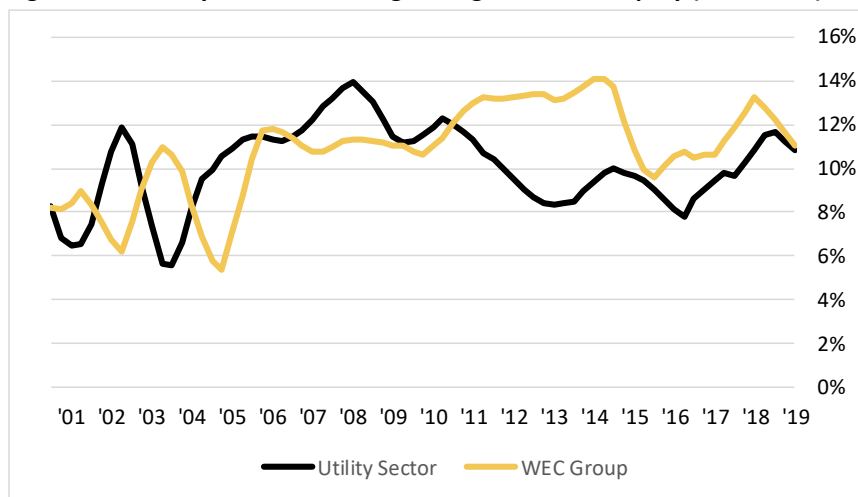
### Regulation

Utilities can operate in regulated and unregulated businesses. Wisconsin tends to be a more utility-friendly environment. The return on equity for utilities as a sector has fluctuated between six and 14% over the last 20 years. The company has earned a more stable ROE of 11.6% over the last five years. There have been few rate cases since 2015, but the firm is now seeking to raise rates in some of its subsidiaries.

WEC's ROE is less volatile than the industry and remains higher than the industry

Over the past decade, the Company's ROE has averaged over 11%; whereas, the utility sector was below 10%. In 2015, WEC acquired Integrys resulting with a small, short fall in ROE. In 2018, the sudden change in the corporate tax rate significantly altered the Company's ROE. For the last five years, WEC had a higher ROE than the sector, but followed its overall trend.

**Figures 4: Industry 12-month rolling average return on equity (2001-2019)**



Source: FactSet

In April 2019, We Energies requested the Public Service Commission (PSC) to allow it to increase electric rates by 2.9% in 2020 and 2021. On October 31, a settlement was approved giving We Energies a 1.3% and 2.8% increase in electric and gas revenues effective January 1, 2020. The firm does not have any other outstanding rate cases, and the last important rate case was a few years ago. Still, I believe it has the ability to increase its ROE for its larger divisions due to its lack of recent cases. This along with capital spending plans, will lead to higher returns for shareholders.

Rate cases ultimately drive WEC's earnings through an allowed rate of return

**Figures 5: Important Rate Case Numbers (2019 current allowed rate of returns)**

Rate Case	Utility	ROE	Equity
WE	Electric	10.2%	51.0%
WE	Gas	10.2%	51.0%
WPS	Electric	10.0%	51.0%
WPS	Gas	10.0%	51.0%
Michigan	Gas	9.9%	52.0%
Minnesota	Gas	9.7%	50.9%

Source: Company Reports

The firm has potential to increase its regulated rate of return

Capital Expenditures

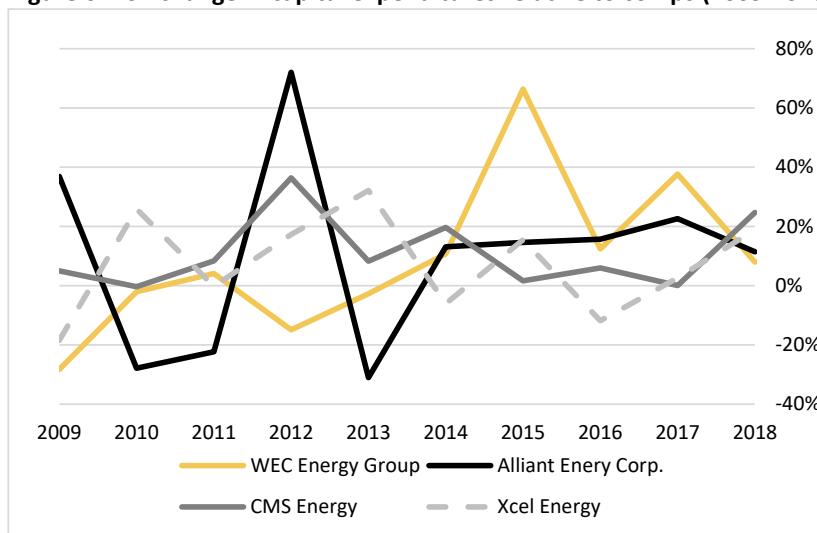
Given that utility companies make a regulated return on capital, growing capital is the key to long-term earnings growth. WEC's average asset base was \$19.8 billion as of December 31, 2018 and the firm plans to grow that base to \$30.2 billion by FY end 2024 for a compound annual growth rate of 7%. This projected growth would add \$2.07 to EPS from 2018 to 2024. Management expects to grow the firm's gas distribution asset base by over 18.4% (\$5 billion) in the next five years while its electric generation and distribution should increase by 36.8% (\$2.9 billion). The Company's infrastructure (wind farm investments) is forecasted to grow by \$1.6 billion for an increase in its infrastructure asset base of over 12x. We Power's capital is forecasted to grow 11.8% (\$350 million) and transmission assets to increase 19.8% (\$550 million).

In addition to capital expenditures, WEC's investments were high in 2015 due to its acquisition of Integrys Energy Group. In 2017, it also acquired Bluewater Gas Storage based in Michigan providing one-third of its storage needs for natural gas distribution in Wisconsin. These investments have brought higher revenues with no change in its regulated rate of return.

Growth in capital expenditures corresponds to future growth

Alliant Energy Corp (LNT), CMS Energy (CMS), and Xcel Energy (XEL) are all engaged in the generation, purchase, transmission, distribution, and sale of electricity similar to Wisconsin Energy Group. The years of significant increases for LNT and WEC resulted from large acquisitions in 2012 and 2015, respectively.

Figure 6: YoY change in capital expenditures relative to comps (2009-2018)

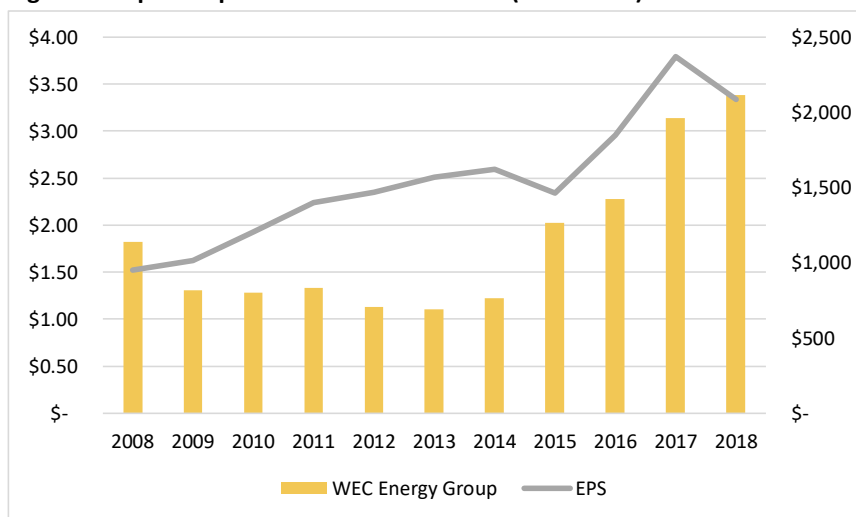


Source: Bloomberg

From 2008 to 2014, capital spending decreased while EPS increased. At this time, the firm sold its money-losing, non-regulated businesses. The firm then cut its dividend and started growing it again as EPS recovered. EPS once again dropped with the acquisition of Integrys in 2015 which was funded by the issuance of new shares and \$1.5 billion of debt. The issuances of new shares to fund the acquisition more than offset earnings, ultimately damaging EPS in 2015. The firm's total debt/equity was stable at 117.5% in 2014 and 119.5% in 2015.

WEC's EPS rose 8% CAGR from 2008-2019

Figure 7: Capital expenditures relative to EPS (2008-2018)



Source: Bloomberg

Since 2015, besides the acquisition, the firm has embarked on growing gas distribution as well transmission lines. As part of its capital plan for the next five years, the firm hopes to grow its EPS in line with its capital spending growth resulting in a compounded annual growth rate of 5-7%.

Clean Energy Trends and Infrastructure Investment

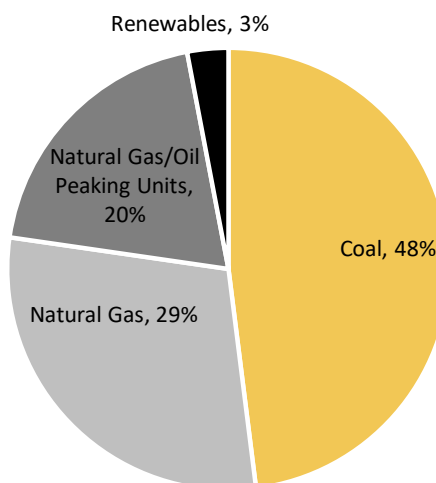
WEC is moving into the clean energy area by investing in wind farms throughout the region

The utility industry is moving toward renewable energy with the movement to use cleaner energy sources. Switching to clean energy is costly for WEC in both infrastructure investments and the loss of customers, but the investment in infrastructure contributes to its base rate which increases revenues. WEC has made multiple investments in small wind farms throughout the region and extending into Nebraska.

The company has invested over \$900 million in wind energy contracts (at least 10 years into the future) in four wind farm/energy centers for an average ownership interest of 88%. I forecast this to add \$0.26 to EPS ( $[\$900 \text{ million} \times 88\% \text{ equity} \times 10.5\% \text{ ROE}] \div 316 \text{ million shares}$ ) over the next 10 years. By the end of this year and into 2020 it will add an additional capacity of 700 Megawatts (MW). This will be a large increase to WEC’s 2018 year-end of 220 MW capacity for renewable energy. Renewable energy capacity will grow from 3% to 11.5%. WEC is focused on reducing carbon dioxide emissions by approximately 40% below 2005 levels by 2030 and 80% below 2005 levels by 2050. The firm, along with other utility companies, are reducing coal usage altogether with growing clean energy trends and sources such as renewable energy.

The company’s capacity is currently dominated by natural gas and coal

**Figure 8: WEC’s capacity by fuel source (Megawatts)**



Source: Company Reports

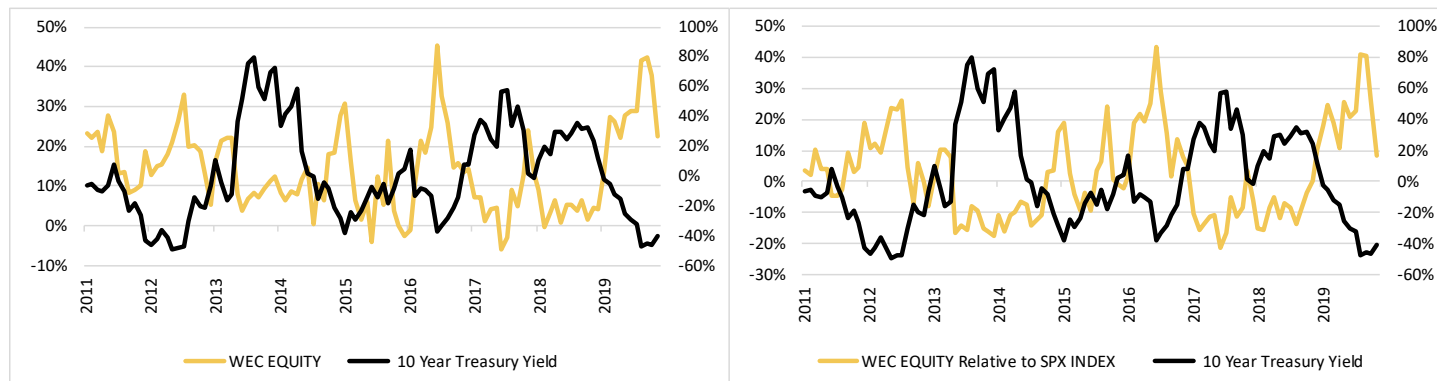
Macroeconomic Trends

The utility sector acts as a substitute for fixed income markets in periods with low interest rates

The utility industry is inversely correlated with interest rates, specifically the 10-year treasury yield. As the interest rates decrease for the 10-year treasury yield, WEC and other utilities look more attractive to investors as they pay a high yield (3.0% for the industry and 2.6% for WEC). Plus, utilities are a great defensive equity for investors looking for safe investments in a low-interest rate market that often coincides with a deteriorating economy.

WEC Energy Group had a great 3<sup>rd</sup> quarter stock return due to the sudden decrease in interest rates. The firm seems to have caught the attention of many people looking to invest in safer securities that earn a higher rate dividend yield than many bonds.

Figures 9 and 10: Yearly changes in absolute price of WEC (left) versus the 10-year treasury yield (right) – left; yearly changes in relative price of WEC compared to the S&P 500 (left) versus 10-year treasury yield (right) – right



Source: Bloomberg, IMCP

Source: Bloomberg, IMCP

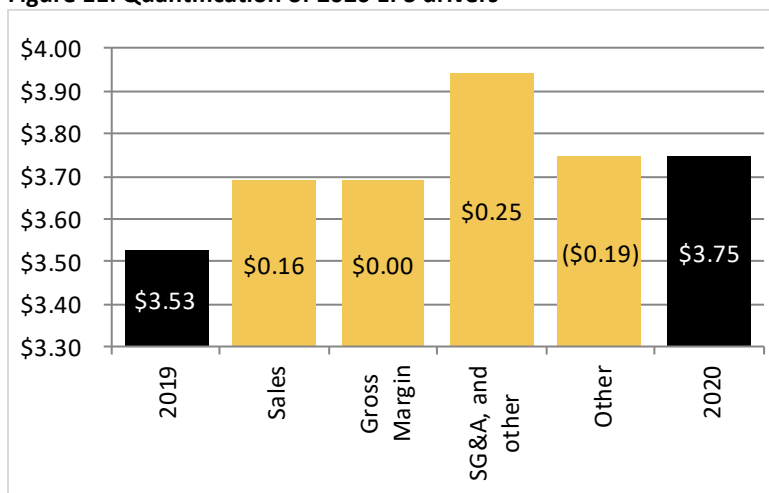
The company has earned an average compounded annual growth rate of 8% over the last ten years compared to the global utility average of 7%. The average dividend yield for the industry sector currently is 3.0% versus WEC at 2.6%. The firm’s dividend payout ratio has been 65% for three years and management expects to grow dividends at approximately 6% with its capital spending growth to maintain a payout ratio from 65-75%.

### Financial Analysis

I anticipate EPS to grow 6.2% by \$0.22 in FY 2020. Due to a relatively stagnant growth for electric energy, natural gas revenue growth is mostly responsible for the increase in EPS. I predict gross margin to be unchanged as a percent of sales due to a slowing decrease in gross margin over the last four years with no change in EPS. SG&A for WEC mostly consists of general expenses like employee salaries, bonuses, etc.; therefore, I forecast a minimal increase in the dollar amount of SG&A. This makes for a larger impact on EPS of \$0.25 with SG&A as a percentage of sales decreases through FY 2020.

EPS is expected to grow 6.2% in 2020

Figure 11: Quantification of 2020 EPS drivers

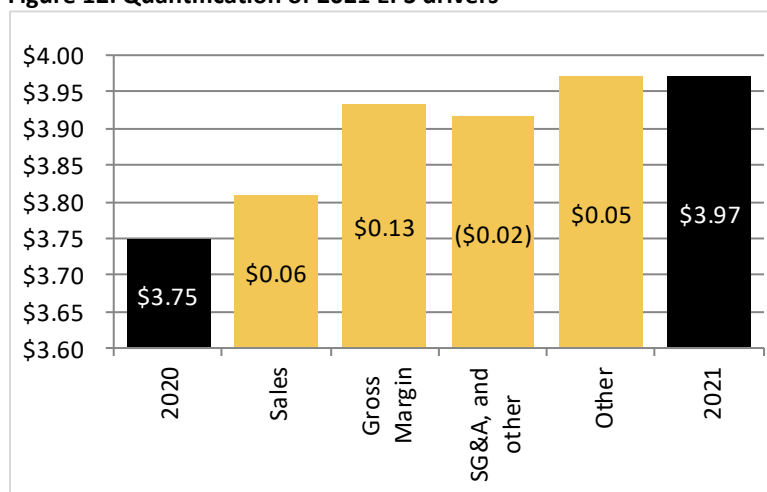


Source: Company Reports, IMCP

Other expenses, such as interest, I forecast to grow at a steadier rate of 4.1% which carries to a 6.8% increase in interest expense in FY 2020. Due to the Tax Cuts and Jobs Act of 2017, the Company took advantage of some of these tax benefits paying only \$100 million in taxes for an effective tax rate of 9.4%. With that in mind, I estimate an increase in taxes paid over doubling the tax expense for Wisconsin Energy Group. Along with interest and tax expense increases, I included a steady stock buyback of \$75 million (843,000 shares), all of which is contributing a negative \$0.19 EPS.

For FY 2021, I predict EPS to grow \$0.23 or, 5.9%. Revenue is predicted to grow from increases in natural gas usage. Sales will likely remain stagnant for electric sales. With a 3% increase natural gas revenues, EPS should grow by \$0.13 due to an overall increase in sales revenue. The largest increase in EPS of \$0.13 is expected to come from an increase in gross margin which I expect to grow from 51.2% to 51.8%. I expect SG&A to rise 1.6% due to general increases in employment expenses which is an increase from 30.2% to 30.3% as a percent of sales revenues for a negative effect of \$0.02 on EPS. Interest expense is projected to grow 6.9% due to an increase in new debt of \$900 million to aid in the coverage of over \$1 billion in capital expenditures. The effective tax rate is expected to raise to 21% from the previous FY 2020 effective tax rate of 18%. This makes for a 16.7% increase in tax expense for WEC. I expect the big increase in interest and tax expense to be more than offset by additional stock buybacks of 843,000 shares to create \$0.05 of EPS.

Figure 12: Quantification of 2021 EPS drivers



Source: Company Reports, IMCP

WEC is expected to more pay taxes compared to the previous year and interest is increasing with additional debt

I agree with consensus estimates for FY 2020 and 2021. For FY 2020, I am just \$0.01 below consensus EPS due to differences in sales growth as well as direct costs which I predict to grow at a closer rate to sales. As for FY 2021, I see more of an impact on EPS due to the rising debt as well as higher taxes. I anticipate short-term and long-term debt to have a higher cost to the company resulting in lower EPS than consensus.

Figure 13: Revenue, EPS, Direct Costs and YoY Growth estimates

	FY 2019E		FY 2020E		FY 2021E	
	Estimate	Consensus	Estimate	Consensus	Estimate	Consensus
Revenue	\$ 7,830	\$ 7,828	\$ 8,114	\$ 8,171	\$ 8,224	\$ 8,122
YoY Growth	2.0%	1.9%	3.7%	4.4%	0.6%	-0.6%
EPS	\$ 3.53	\$ 3.53	\$ 3.75	\$ 3.74	\$ 3.97	\$ 4.00
YoY Growth	5.7%	5.7%	6.2%	5.9%	6.1%	7.0%
Direct Costs	\$ 3,820	\$ 3,777	\$ 3,959	\$ 3,860	\$ 3,964	\$ 3,909
YoY Growth	2.0%	0.9%	4.8%	2.2%	2.7%	1.3%

Source: FactSet, IMCP

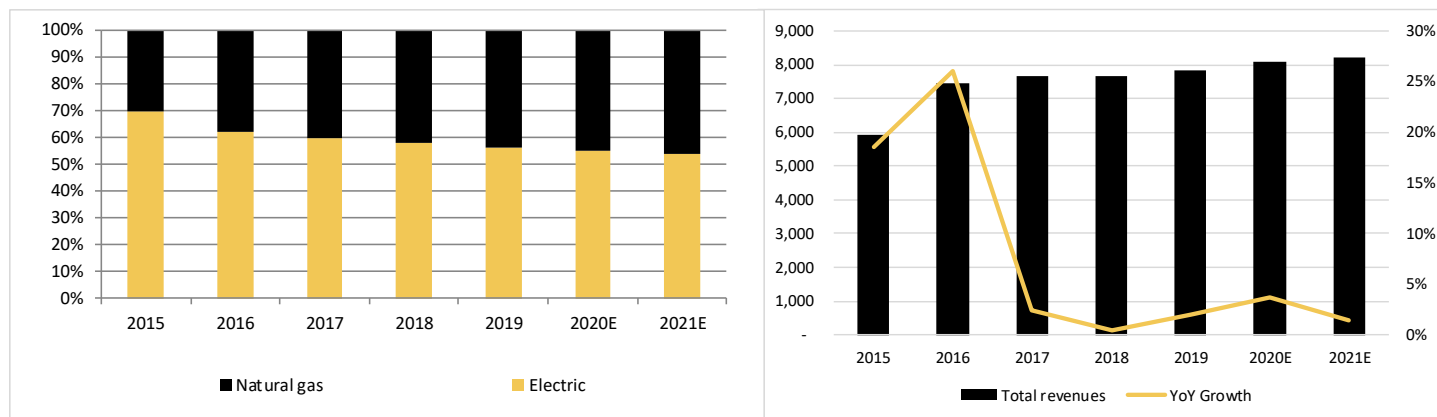


Revenues

Wisconsin Energy Group’s revenue has increased steadily since its acquisition of Integrys in 2016. I expect this trend to continue into 2020 and 2021; however, I see natural gas sales growing significantly (from 2% in 2019 to 3.6% in 2020 and 1.4% in 2021) in comparison to electric sales remaining stagnant. Natural gas sales will continue to increase as power usage increases throughout Wisconsin and parts of Illinois, Minnesota, and Michigan.

The Company’s revenues are expected to increase due to overall population growth, but also business development within Wisconsin is growing at a noticeable pace. Foxconn and Amazon are building facilities in Wisconsin which will require great power usage. Foxconn is in the process of being built, and the Amazon fulfillment center expansion is expected to open in the first quarter of 2020. WEC also has lower electric residential bills than the national average which encourage low cost power usage.

**Figure 14 & 15: Wisconsin Energy Group segment revenues – left; Revenue (millions, left) vs YoY revenue growth (right) – right**



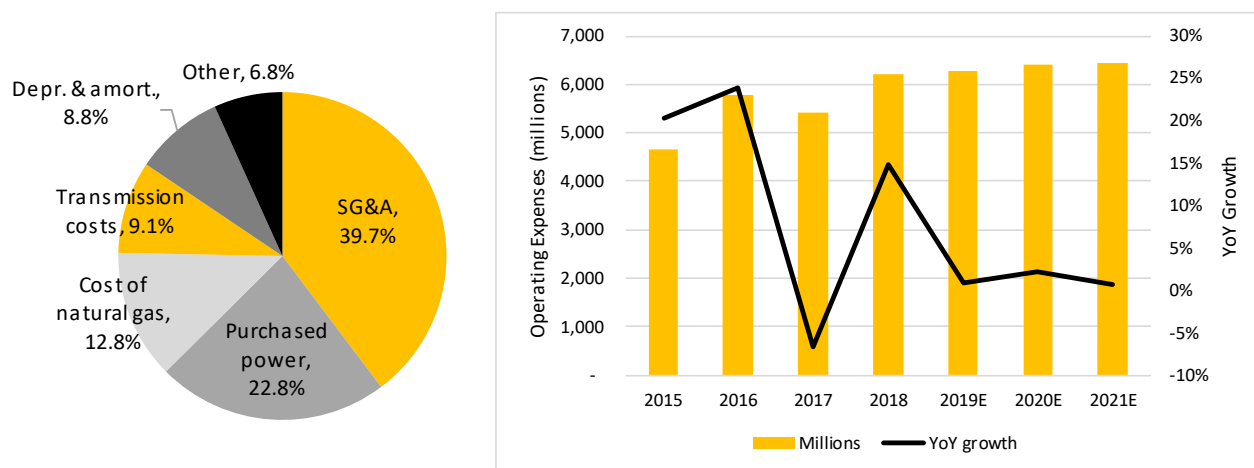
Source: Company Reports, IMCP

Source: Company Reports

Operating Income and Margins

Operating expenses are composed primarily of selling, general and administrative expense as well as the cost of purchased power and natural gas. SG&A expenses remain relatively stable and predictable making for a stable, but minimal growth rate. Purchased power and natural gas, on the other hand, are more correlated with sales. These are a part of direct costs which I forecast to increase in relation to sales.

**Figures 16 & 17: Composition of 2018 operating expenses – left; Operating expenses vs YoY expense growth – right**



Source: Company Reports

Source: Company Reports

Return on Equity

Wisconsin Energy Group has a stable ROE with an unusual increase in 2017. Although ROE is regulated for the company, I project, over the short-term, ROE to rise slightly due to increasing margins. However, I expect the rise in ROE to later return to 11%. DuPont analysis for WEC shows the rise in ROE is driven by the increase of margins, but partially offset by a decrease in asset turnover. The average asset base is slowing climbing when compared to average equity, which boosted ROE.

**Figure 18: ROE breakdown (2016 – 2021E)**

3-stage	2016	2017	2018	2019E	2020E	2021E
Net income / sales	12.6%	15.8%	13.8%	14.2%	14.5%	15.1%
Sales / avg assets	0.25	0.25	0.24	0.23	0.23	0.22
ROA	3.2%	3.9%	3.3%	3.3%	3.3%	3.3%
Avg assets / avg equity	3.38	3.36	3.38	3.42	3.45	3.50
ROE	10.7%	13.1%	11.0%	11.1%	11.4%	11.7%

Source: Company Reports, IMCP

I anticipate ROE growth over the next two years due to increasing leverage as WEC is expected to increase borrowing in order to fund its capital expenditures. The firm will be using additional debt to fund its growth. This will not have any significant impact on the solvency of WEC, as debt/assets increases from 36.2% to 37.7% over 2020 and 2021. I project the company's rate on debt to remain at 4.1%; however, the rate could increase with little effect on the firm's overall operations.

Free Cash Flow**Figure 19: Free cash flow calculations (2015-2021E)**

Free Cash Flow	2015	2016	2017	2018	2019E	2020E	2021E
NOPAT	\$660	\$937	\$1,285	\$1,225	\$1,413	\$1,397	\$1,397
Growth		42.0%	37.1%	-4.7%	15.4%	-1.1%	0.0%
NOWC	751	755	631	721	759	707	733
Net fixed assets	27,148	27,955	29,377	31,228	32,575	34,528	35,914
Total net operating capital	27,899	28,709	30,008	31,949	33,333	35,235	36,646
Growth		2.9%	4.5%	6.5%	4.3%	5.7%	4.0%
- Change in NOWC		4	(124)	90	38	(52)	26
- Change in NFA		806	1,423	1,851	1,347	1,953	1,385
FCFF		\$127	-\$14	-\$717	\$29	-\$504	-\$14
Growth			-110.7%	5165.6%	-104.0%	-1861.3%	-97.1%
- After-tax interest expense		224	299	371	453	438	451
+ Net new short-term and long-term debt		(201)	858	789	823	1,000	1,015
FCFE		-\$298	\$545	-\$299	\$399	\$58	\$549
Growth			-282.6%	-154.8%	-233.7%	-85.6%	853.6%
FCFF per share		\$0.40	(\$0.04)	(\$2.27)	\$0.09	(\$1.60)	(\$0.05)
Growth			-110.7%	5167.3%	-104.0%	-1866.0%	-97.1%
FCFE per share		(\$0.95)	\$1.73	(\$0.95)	\$1.27	\$0.18	\$1.75
Growth			-282.6%	-154.8%	-233.7%	-85.5%	856.1%

Source: Company Reports, IMCP

WEC's free cash flow has been remarkably volatile over the last several years. The firm last paid down debt in 2016 and ever since has increased debt each year. In 2016, WEC paid off \$201 million in debt, only to borrow a total of \$2.5 billion over the next three years. Over these three years, interest expense doubled while net fixed assets grew 16.5% (\$4.6 billion).

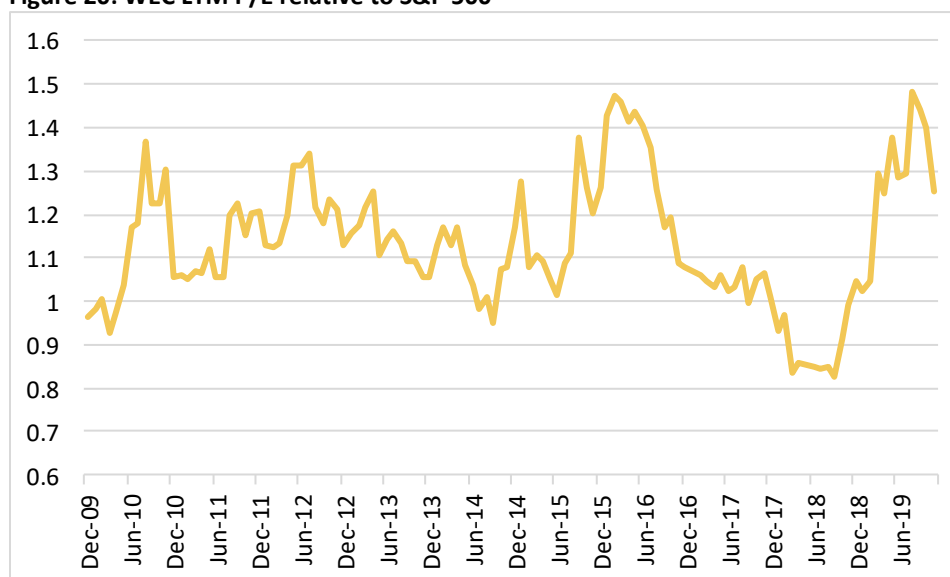
## Valuation

WEC was valued using a 3-stage discounting cash flow model with three different multiples: price-to-earnings, price-to-book, and price-to-sales. Relative valuation shows WEC to be overvalued based on its fundamentals versus those of its peers in the utility sector within the United States. Using the DCF analysis, the multiples P/E, P/B and P/S yielded values of \$74.84, \$81.07, and \$71.76 respectively. I chose to use an equal weighting due to the relatively high P/E of the sector over the past year, huge increase in invested capital throughout the industry, and slow sales growth. Finally, this weighted scenario analysis yields a price of \$76.

### Trading History

WEC's LTM P/E is currently trading near its five year high relative to the S&P 500. This is the result of declining interest rates. WEC's current LTM P/E is at 25.8 compared to its five year average of 21.3. Though this is expensive, there is low risk with its growth. While I expect some regression towards that number in the future, I do not think that is likely to be the case in the near term.

**Figure 20: WEC LTM P/E relative to S&P 500**



Source: FactSet

Assuming the firm's P/E drops slightly to 24.5 LTM P/E at the end of 2020, it should trade at \$91 by the end of the year:

- Price = P/E x EPS = 24.5 x \$3.75 = \$91.

Discounting \$91 back to today at a 5.14% cost of equity (explained in DCF section) yields a price of \$86. Given WEC's significant growth in the last twelve months, this seems to be a relatively high valuation.

Relative Valuation

Compared to its peers, WEC is overvalued

Wisconsin energy Group is currently trading at a P/E extremely higher than its peers, with a 2019 P/E of 25.2 compared to an average of 18.7. Investors are willing to temporarily pay a premium for WEC since it has offered high EPS growth and a secure high yield investment. WEC's P/S ratio is significantly higher than its peers, however its P/B ratio is close to its competitor's average. This reflects WEC's higher margin (3% higher) and similar ROE (1% lower).

Figure 21: WEC comparable companies

Ticker	Current Price	Market Value	Price Change							Earnings Growth							Beta	LT Debt/ S&P		LTM Dividend	
			1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	LTG	NTM	2018	2019	2020	2021	Pst 5yr	Equity		Rating	Yield	Payout	
WEC	\$96.17	\$30,335	1.1	6.1	3.7	11.6	36.8	4.3	6.6	-0.7%	6.4%	5.7%	5.9%	7.0%	5.9%	0.13	108.4%	A	2.56%	67.1%	
CMS	\$65.38	\$18,558	1.1	5.7	2.9	12.0	29.4	4.0	6.4	19.4%	7.4%	6.9%	7.2%	7.9%	7.0%	0.15	245.3%	A-	2.43%	68.8%	
EXC	\$46.74	\$45,436	0.4	4.6	4.1	(3.4)	2.1	2.5	3.2	34.6%	20.0%	0.3%	-1.0%	-2.6%		0.30	101.3%	B	3.18%	60.2%	
LNT	\$56.78	\$13,890	0.9	6.2	8.6	13.7	33.9	3.8	5.2	10.8%	12.4%	6.0%	4.8%	6.2%	6.3%	0.21	111.7%	A-	2.60%	62.8%	
XEL	\$65.03	\$34,101	0.9	3.2	2.4	6.6	29.4	2.4	5.7	8.1%	7.4%	6.1%	6.1%	6.5%	5.3%	0.21	140.1%	A-	2.55%	63.8%	
AEE	\$79.21	\$19,488	1.3	4.6	4.6	3.9	18.8	3.1	5.4	5.3%	19.1%	-3.0%	5.8%	9.8%		0.16	129.9%	B+	2.87%	62.3%	
AEP	\$97.31	\$48,066	0.7	4.6	5.1	7.5	28.5	3.0	5.7	-2.5%	7.3%	6.3%	4.8%	6.4%		0.16	129.9%	B+	2.87%	62.3%	
Average		\$29,982	0.9	5.0	4.5	7.4	25.6	3.3	5.5	10.7%	11.4%	4.0%	4.8%	5.9%	6.1%	0.19	138.1%		2.72%	63.9%	
Median		\$30,335	0.9	4.6	4.1	7.5	29.4	3.1	5.7	8.1%	7.4%	6.0%	5.8%	6.5%	6.1%	0.16	129.9%		2.60%	62.8%	
SPX	\$3,317		0.8	3.9	10.9	10.4	26.8	2.7			23.6%	1.3%	7.2%	7.7%							
Ticker	2019		P/E							2019				EV/		P/CF	Sales Growth			Book	
	ROE	P/B	2017	2018	2019	TTM	NTM	2020	2021	NPM	P/S	NM	OM	ROIC	EBIT	Current	NTM	STM	Pst 5yr	Equity	
WEC	11.1%	3.02	18.7	19.9	27.2	27.8	28.0	25.7	24.0	14.2%	3.88	13.8%	18.6%	5.6%	23.6	14.2	2.9%		11.2%	\$31.86	
CMS	14.8%	3.90	19.2	20.3	19.9	29.9	25.0	24.5	22.7	0.9%	0.25	9.6%	16.9%	4.5%	22.1	10.8	3.8%	1.9%	0.9%	\$16.78	
EXC	9.5%	1.42	13.7	12.6	14.4	19.6	14.6	15.1	15.5	9.1%	1.36	5.6%	13.3%	3.1%	16.7	5.4	-6.2%	8.9%		\$32.95	
LNT	11.1%	2.74	19.6	19.6	18.4	25.5	23.0	23.6	22.2	15.4%	3.81	14.8%	19.6%	5.7%	23.0	11.9	5.6%		1.5%	\$20.71	
XEL	10.5%	2.59	17.7	19.5	18.8	26.0	24.1	23.4	22.0	11.6%	2.87	10.9%	17.0%	4.7%	21.6	10.9	5.0%	1.5%	1.1%	\$25.06	
AEE	10.3%	2.50	18.5	17.5	19.9	24.4	23.2	22.9	20.8	12.8%	3.11	13.0%	21.6%	5.5%	18.6	10.2	13.6%	-7.7%		\$31.70	
AEP	10.8%	2.50	17.1	18.6	17.8	22.6	23.2	22.1	20.8	12.8%	2.96	11.9%	16.8%	4.9%	22.8	10.5	13.6%	-7.7%		\$38.90	
Average	11.2%	2.67	17.8	18.3	19.5	25.1	23.0	22.5	21.1	11.0%	2.61	11.4%	17.7%	4.8%	21.2	10.6	5.5%	-0.6%	3.7%		
Median	10.8%	2.59	18.5	19.5	18.8	25.5	23.2	23.4	22.0	12.8%	2.96	11.9%	17.0%	4.9%	22.1	10.8	5.0%	1.5%	1.3%		
SPX			17.2	16.6	15.4			19.0	17.7												

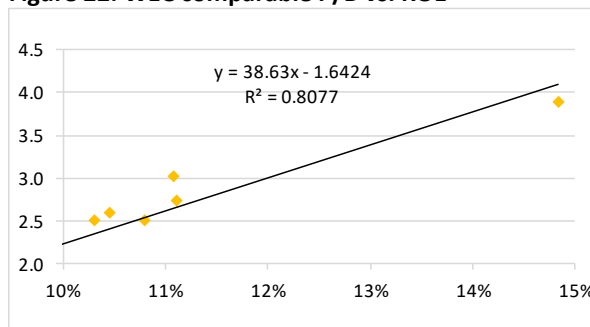
Source: FactSet, IMCP

WEC has a higher P/B than its peers and a slightly lower ROE. According to these measures, the firm is overvalued.

- Estimated P/B = 2020 ROE (11.4%) x b (38.63) + Intercept (1.6424) = 2.76
- Target Price = Estimated P/B (2.76) x 2020 Book Value Per Share (\$33.40) = \$87.40

Discounting back to the present at a 5.14% cost of equity leads to a target price of \$83 using this metric. This metric shows WEC being overvalued relative to its peers; however, I believe its peers are overvalued as a sector due to falling interest rates in the last year.

Figure 22: WEC comparable P/B vs. ROE



Source: IMCP

For a final comparison, I created a composite ranking of several valuation and fundamental metrics in figure 23 & 24. Since the variables have different scales, each was converted to a percentile before calculating the composite score. An equal weighting of long-term growth rate and 2019 ROE was compared to an equal weight composite of P/B and yield. The regression line had an R-squared of 0.92. One can see that WEC (black square, figure 24) is directly on the line, so it is fairly valued based on its fundamentals.

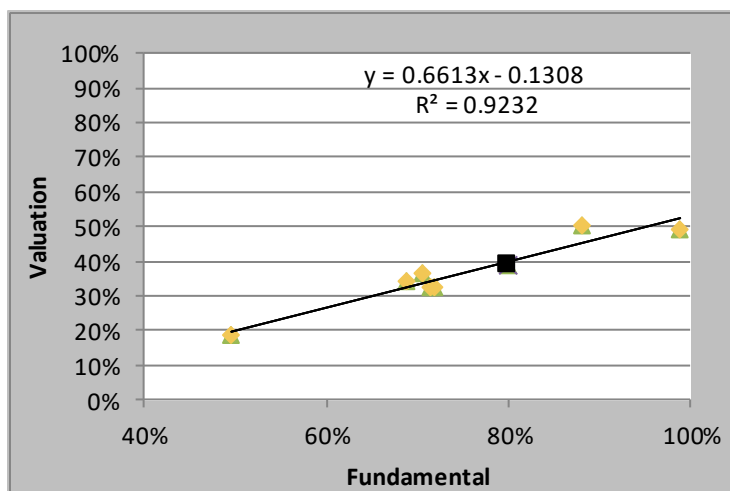
Using LTG and ROE are good fundamentals for a valuation of WEC with P/B & yield

**Figure 23: Composite valuation, % of range**

Ticker	Name	Weight		Fundamental		Valuation	
		Fund	Value	50% LTG	50% ROE	50% P/B	50% Yield
WEC	WEC ENERGY GROUP INC	80%	39%	100%	60%	77%	94%
CMS	CMS ENERGY CORP	88%	50%	97%	80%	100%	100%
EXC	EXELON CORP	50%	18%	48%	51%	37%	76%
LNT	ALLIANT ENERGY CORP	71%	37%	79%	62%	73%	93%
FE	FIRSTENERGY CORP	99%	49%	98%	100%	98%	78%
XEL	XCEL ENERGY INC	69%	34%	82%	56%	68%	96%
AEE	AMEREN CORP	72%	33%	89%	55%	65%	84%
AEP	AMERICAN ELECTRIC POWER CO	71%	32%	85%	58%	65%	84%

Source: FactSet

**Figure 24: Composite relative valuation**



Source: IMCP

Discounted Cash Flow Analysis

A three stage discounted cash flow model was also used to value WEC. I chose to value the firm based on an evenly weighted average of the discounted cash flows using P/E, P/B, and P/S multiples.

For the purpose of this analysis, the company’s cost of equity was calculated to be 5.1% 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 10-year treasury bond yield, is 1.9%.
- A current beta of .4 for the industry was utilized since the sector has a much lower 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  $1.9\% + .4(10.0\% - 1.9\%) = 5.1\%$ .

*Stage One* - The model's first stage simply discounts fiscal years 2020 and 2021 free cash flow to equity (FCFE). These per share cash flows are forecasted to be \$0.18 and \$1.75, respectively. Discounting these cash flows, using the cost of equity calculated above, results in a value of \$1.76 per share. Thus, stage one of this discounted cash flow analysis contributes \$1.76 to value.

*Stage Two* - Stage two of the model focuses on fiscal years 2022 to 2026. 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 5.1% cost of equity. I assume 3.6% sales growth in 2020, decreasing to 1.4% in 2021 and then a constant growth rate of 2.0% until 2026. NOWC to sales is projected to decrease from 2019 levels and NFA turnover to decrease from 0.24 in 2019 to 0.23 evenly over the seven years to 2026 as a result of increasing assets. Also, the NOPAT margin is expected to decrease from 17.2% in 2020 to 17.0% in 2021 and then increase over the next five years to 18.0%. Finally, after-tax interest is expected to rise approximately 4.5% per year as the result of increases in borrowing. From 2022 to 2026, per share cash flows are \$3.06, \$3.10, \$3.14, \$3.19, and \$3.24 respectively for a total of \$15.73. Discount this back to 2019 and today's value is \$12.26.

**Figure 25: FCFE and discounted FCFE (2015 – 2021)**

	2020	2021	2022	2023	2024	2025	2026
FCFE	\$0.18	\$1.75	\$3.06	\$3.10	\$3.14	\$3.19	\$3.24
Discounted FCFE	\$0.17	\$1.58	\$2.63	\$2.54	\$2.45	\$2.36	\$2.28

Source: IMCP

Added together, these discounted cash flows total \$14.02.

*Stage Three* – The model requires assumptions regarding the company's terminal price-to-earnings, price-to-book and price-to-sales. I chose P/E, P/B and P/S multiples based on the fact that they may converge to the industry 10-year average since utilities have been bid up the last three years.

*P/E Stage Three* – Net income for the years 2022 – 2026 is calculated based upon the same margin and growth assumptions used to determine FCFE in stage two. EPS is expected to grow from \$3.97 in 2021 to \$4.43 in 2026. Given the assumed terminal earnings per share of \$4.43 and a price to earnings ratio of 19.5, a terminal value of \$86.39 per share is calculated. Using the 5.1% cost of equity, this number is discounted back to a present value of \$60.82. Add the present value of the first and second stage of the DCF (\$14.02) to get a present value of \$74.84.

**Figure 26: EPS estimates (2015 – 2021)**

	2020	2021	2022	2023	2024	2025	2026
EPS	\$3.75	\$3.97	\$4.05	\$4.14	\$4.23	\$4.33	\$4.43

Source: IMCP

*P/B Stage Three* – Book value for the years 2022 – 2026 is calculated by the previous year's book value plus net income minus dividends minus net issuance. Net income is calculated as previously stated for P/E. I forecast dividends to be in between management's target payout ratio of 65-75% and hold stock buybacks at a constant 0.3%. With a projected book value of \$12.8 billion, the book value per shares is \$41.41 resulting in a \$95.23 terminal value when multiplied by a 2.3 P/B. Discount this back at the same

cost of equity and today's value of the firm is \$67.05. Add \$14.02, the present value of the first and second stage of the DCF, to get a present value of \$81.07.

**Figure 27: Third stage terminal P/B calculation (2020-2026)**

Year ending January	2020	2021	2022	2023	2024	2025	2026
<b>Third Stage</b>							
Terminal value P/B							
Book value	\$10,508	\$10,855	\$11,216	\$11,594	\$11,988	\$12,402	\$12,835
Terminal P/B							2.30
* Terminal BPS							\$41.41
Terminal value							\$95.23
* Discount factor							0.70
Discounted terminal value							\$67.05

Source: IMCP

*P/S Stage Three* – With the sales growth and share buybacks mentioned earlier, terminal sales per share in year 2026 is calculated to be \$29.29. This multiplied by the terminal P/S of 2.80 and discounted back to today, calculates a terminal value of \$57.75. Once more, add \$14.02 to get a present value of \$71.76.

**Figure 28: Third stage terminal P/S calculation (2020-2026)**

Year ending January	2020	2021	2022	2023	2024	2025	2026
<b>Third Stage</b>							
Terminal value P/S							
Sales	\$8,114	\$8,224	\$8,389	\$8,556	\$8,728	\$8,902	\$9,080
Terminal P/S							2.80
* Terminal SPS							\$29.29
Terminal value							\$82.02
* Discount factor							0.70
Discounted terminal value							\$57.75

Source: IMCP

*Total Present Value* – Given the above calculations and utilizing a three stage discounted cash flow model for the three P/E, P/B and P/S ratios, I used an equal weighted average of the three DCFs to derive a final present value of \$76.

- Present Value =  $(\$74.84 + \$81.07 + \$71.76) / 3 = \$76$

#### Scenario Analysis

*Bull Case* – For the bear case, I assume an increase in sales growth to 3% per year and a rise in NOPAT/sales to 19% instead of increasing to 18%. I then changed the terminal P/E, P/B and P/S to more closely resemble the industry in today's market with higher multiples of 23.5, 2.5, and 3.3 respectively. The terminal values for each multiple are shown below and result in an equal weighted average of \$86.88 (present value) which indicates the stock would still be overvalued today.

**Figure 29: Third stage bull case valuation**

<b>Summary (using P/S multiple for terminal value)</b>		
First stage	\$1.76	Present value of first 2 year cash flow
Second stage	\$8.46	Present value of year 3-7 cash flow
Third stage	\$71.46	Present value of terminal value P/S
Value (P/S)	<b>\$81.68</b>	
<b>Summary (using P/B multiple for terminal value)</b>		
First stage	\$1.76	Present value of first 2 year cash flow
Second stage	\$8.46	Present value of year 3-7 cash flow
Third stage	\$75.77	Present value of terminal value P/B
Value (P/B)	<b>\$85.99</b>	
<b>Summary (using P/E multiple for terminal value)</b>		
First stage	\$1.76	Present value of first 2 year cash flow
Second stage	\$8.46	Present value of year 3-7 cash flow
Third stage	\$82.75	Present value of terminal value P/E
Value (P/E)	<b>\$92.97</b>	

Source: IMCP

**Bear Case** – For the bear case, I assume a drop in sales growth to just 1% per year and a consistent NOPAT/sales ratio of 17% instead of slowly increasing to 18%. I then changed the terminal P/E, P/B and P/S to converge to their respective 10-year industry average. I used multiples of 18.1, 1.9, and 2.4 respectively. The terminal values for each multiple are shown below and an equal weighted target is \$68.

**Figure 30: Third stage bear case valuation**

<b>Summary (using P/S multiple for terminal value)</b>		
First stage	\$1.81	Present value of first 2 year cash flow
Second stage	\$12.56	Present value of year 3-7 cash flow
Third stage	\$56.77	Present value of terminal value P/S
Value (P/S)	<b>\$71.14</b>	
<b>Summary (using P/B multiple for terminal value)</b>		
First stage	\$1.81	Present value of first 2 year cash flow
Second stage	\$12.56	Present value of year 3-7 cash flow
Third stage	\$65.50	Present value of terminal value P/B
Value (P/B)	<b>\$79.87</b>	
<b>Summary (using P/E multiple for terminal value)</b>		
First stage	\$1.81	Present value of first 2 year cash flow
Second stage	\$12.56	Present value of year 3-7 cash flow
Third stage	\$61.04	Present value of terminal value P/E
Value (P/E)	<b>\$75.41</b>	

Source: IMCP

## Business Risks

Although I have many reasons to be optimistic about Wisconsin Energy Group, there are several good reasons why I could be wrong.



Governmental regulation:

The Company is subject to state, local, and federal governmental regulation, including various utility commissions. These regulations ultimately determine the operating environment as well as affect the firm's ability to recover costs from its customers.

Costs to comply with laws, regulations, and greenhouse gas emissions:

There are significant costs incurred while complying with continuously changing laws and regulations for WEC and other utility companies. The firm's electric utilities can be subject to higher costs/penalties as a result of changes to standards by the regulatory commissions and government.

Fluctuation in energy sales:

Energy sales can have large swings due to seasonality changes that can adversely affect WEC's regulated ROE over time.

Capital projects:

There are regular capital projects which are subject to their own risks and uncertainties which can adversely affect costs and the completion of construction projects.

Fluctuating commodity prices:

Operating and liquidity requirements are constantly impacted by current and forward market prices of natural gas, coal, electricity, and renewable energy.

## Appendix 1: Porter's 5 Forces

### Threat of New Entrants – Very Low

Significant barriers to entry exist in the industry. As a natural monopoly, WEC, like all utilities, benefits from the substantial capital and regulatory requirements necessary for aspiring competitors. Furthermore, marginal costs of supplying power to an additional customer are minimal. Geographic restraints vary by state but remain favorable for the majority of WEC operations.

### Threat of Substitutes – Low

Technology shifts and government subsidies have decreased price points for solar panels and other renewable generation sources. Self-generation is a growing threat to reduce WEC's customer base. Other self-generation techniques, such as microturbines and fuel cells, provide a long-term threat to WEC's demand but remain nonviable options in short-term demand.

### Supplier Power – Medium

Little competition exists amongst suppliers and the utility industry necessitates high building and development capital expenditures. Heightened needs for capacity and delivery shift power to suppliers of WEC. Natural gas and electric power inputs are highly commoditized, and prices are determined by market forces. WEC faces relatively low switching costs with natural gas suppliers and acts to hedge natural gas market price movements.

### Buyer Power – Low

Residential, small commercial, and industrial customers have very limited ability to switch suppliers. Customers rarely shift demand for power unless external factors necessitate such actions. As prices rise customers may attempt to reduce energy usage with various conservation efforts. In exchange for low customer buying power, rates and allowed returns are heavily regulated. Retail choice and wholesale rate agreements have shifted power to electric and natural gas buyers, but this represents a small portion of WEC's revenue base.

### Intensity of Competition – Low

Industry competition is low due to geographic and regulatory limitations. Independent power producers and retail choice have increased competition, but generally, these are a minimal threat to the industry.

**Appendix 2: SWOT Analysis**

<b>Strengths</b>	<b>Weaknesses</b>
High net margins Economies of scale Growing rate base	High emissions Limited ROE Reliance on C&I customers
<b>Opportunities</b>	<b>Threats</b>
Renewing rate cases Customer growth Improving reliability	Changing interest rates Regulation Weather

**Appendix 3: Income Statement**

<b>Income Statement (in millions)</b>							
<b>Items</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>
Sales	\$5,926	\$7,472	\$7,649	\$7,680	\$7,830	\$8,114	\$8,224
Direct costs	2,802	3,410	3,621	3,744	3,820	3,959	3,964
Gross Margin	3,124	4,062	4,027	3,936	4,010	4,155	4,260
SG&A and other	1,874	2,380	2,242	2,467	2,450	2,452	2,492
EBIT	1,251	1,682	1,785	1,468	1,560	1,704	1,768
Interest	331	403	416	445	500	534	571
EBT	919	1,279	1,370	1,023	1,060	1,170	1,197
Taxes	434	567	384	170	100	211	251
Income	485	713	986	854	960	959	946
Other (net tax)	(155)	(227)	(219)	(207)	(153)	(220)	(300)
Net income	640	940	1,205	1,061	1,113	1,179	1,246
Basic Shares	271.1	315.6	315.6	315.5	315.4	314.6	313.7
Fully Diluted Shares	272.7	316.9	317.2	316.9	316.8	316.0	315.1
EPS	\$2.36	\$2.98	\$3.82	\$3.36	\$3.53	\$3.75	\$3.97
EPS Fully Diluted	\$2.35	\$2.97	\$3.80	\$3.35	\$3.51	\$3.73	\$3.95
DPS	\$1.68	\$1.98	\$2.08	\$2.21	\$2.28	\$2.47	\$2.63

## Appendix 4: Balance Sheets

Balance Sheet (in millions)							
Items	2015	2016	2017	2018	2019	2020E	2021E
Cash	50	38	39	85	48	58	75
Operating assets ex cash	2,157	2,131	2,175	2,163	2,150	2,110	2,138
Operating assets	2,207	2,169	2,214	2,248	2,198	2,167	2,213
Operating liabilities	1,456	1,414	1,583	1,527	1,439	1,461	1,480
NOWC	751	755	631	721	759	707	733
NOWC ex cash (NWC)	701	717	592	637	711	649	658
NFA	27,148	27,955	29,377	31,228	32,575	34,528	35,914
<i>Invested capital</i>	<i>\$27,899</i>	<i>\$28,709</i>	<i>\$30,008</i>	<i>\$31,949</i>	<i>\$33,333</i>	<i>\$35,235</i>	<i>\$36,646</i>
<i>Total assets</i>	<i>\$29,355</i>	<i>\$30,123</i>	<i>\$31,591</i>	<i>\$33,476</i>	<i>\$34,773</i>	<i>\$36,695</i>	<i>\$38,127</i>
Short-term and long-term debt	\$10,377	\$10,176	\$11,033	\$11,799	\$12,571	\$13,471	\$14,371
Other liabilities	8,837	9,573	9,483	10,307	10,475	11,050	11,100
Debt/equity-like securities	30	30	30	54	105	205	320
Equity	8,655	8,930	9,461	9,789	10,182	10,508	10,855
<i>Total supplied capital</i>	<i>\$27,899</i>	<i>\$28,709</i>	<i>\$30,008</i>	<i>\$31,949</i>	<i>\$33,333</i>	<i>\$35,235</i>	<i>\$36,646</i>
<i>Total liabilities and equity</i>	<i>\$29,355</i>	<i>\$30,123</i>	<i>\$31,591</i>	<i>\$33,476</i>	<i>\$34,773</i>	<i>\$36,695</i>	<i>\$38,127</i>

## Appendix 5: Sales Forecast

Sales (in millions)							
Items	2015	2016	2017	2018	2019	2020E	2021E
Sales	\$5,926	\$7,472	\$7,649	\$7,680	\$7,830	\$8,114	\$8,224
<i>Growth</i>		26.1%	2.4%	0.4%	2.0%	3.6%	1.4%
Electric	4,069	4,628	4,559	4,439	4,400	4,444	4,444
<i>Growth</i>		13.8%	-1.5%	-2.6%	-0.9%	1.0%	0.0%
<i>% of sales</i>	68.7%	61.9%	59.6%	57.8%	56.2%	54.8%	54.0%
Natural gas	1,775	2,796	3,037	3,194	3,430	3,670	3,780
<i>Growth</i>		57.5%	8.6%	5.2%	7.4%	7.0%	3.0%
<i>% of sales</i>	30.0%	37.4%	39.7%	41.6%	43.8%	45.2%	46.0%

## Appendix 6: Ratios

Ratios	2015	2016	2017	2018	2019	2020E	2021E
<b>Profitability</b>							
Gross margin	52.7%	54.4%	52.7%	51.3%	51.2%	51.2%	51.8%
Operating (EBIT) margin	21.1%	22.5%	23.3%	19.1%	19.9%	21.0%	21.5%
Net profit margin	10.8%	12.6%	15.8%	13.8%	14.2%	14.5%	15.1%
<b>Activity</b>							
NFA (gross) turnover		0.27	0.27	0.25	0.25	0.24	0.23
Total asset turnover		0.25	0.25	0.24	0.23	0.23	0.22
<b>Liquidity</b>							
Op asset / op liab	1.52	1.53	1.40	1.47	1.53	1.48	1.49
NOWC Percent of sales		10.1%	9.1%	8.8%	9.4%	9.0%	8.8%
<b>Solvency</b>							
Debt to assets	35.3%	33.8%	34.9%	35.2%	36.2%	36.7%	37.7%
Debt to equity	119.9%	114.0%	116.6%	120.5%	123.5%	128.2%	132.4%
Other liab to assets	30.1%	31.8%	30.0%	30.8%	30.1%	30.1%	29.1%
Total debt to assets	65.5%	65.6%	64.9%	66.0%	66.3%	66.8%	66.8%
Total liabilities to assets	70.4%	70.3%	70.0%	70.6%	70.4%	70.8%	70.7%
Debt to EBIT	8.30	6.05	6.18	8.04	8.06	7.91	8.13
EBIT/interest	3.77	4.18	4.29	3.30	3.12	3.19	3.10
Debt to total net op capital	37.2%	35.4%	36.8%	36.9%	37.7%	38.2%	39.2%
<b>ROIC</b>							
NOPAT to sales	11.1%	12.5%	16.8%	15.9%	18.0%	17.2%	17.0%
Sales to NWC		10.54	11.69	12.50	11.62	11.93	12.58
Sales to NFA		0.27	0.27	0.25	0.25	0.24	0.23
Sales to IC ex cash		0.26	0.26	0.25	0.24	0.24	0.23
Total ROIC ex cash		3.3%	4.4%	4.0%	4.3%	4.1%	3.9%
NOPAT to sales	11.1%	12.5%	16.8%	15.9%	18.0%	17.2%	17.0%
Sales to NOWC		9.93	11.04	11.36	10.58	11.07	11.43
Sales to NFA		0.27	0.27	0.25	0.25	0.24	0.23
Sales to IC		0.26	0.26	0.25	0.24	0.24	0.23
Total ROIC		3.3%	4.4%	4.0%	4.3%	4.1%	3.9%
NOPAT to sales	11.1%	12.5%	16.8%	15.9%	18.0%	17.2%	17.0%
Sales to EOY NWC	8.46	10.42	12.92	12.07	11.02	12.50	12.50
Sales to EOY NFA	0.22	0.27	0.26	0.25	0.24	0.24	0.23
Sales to EOY IC ex cash	0.21	0.26	0.26	0.24	0.24	0.23	0.22
Total ROIC using EOY IC ex cash	2.4%	3.3%	4.3%	3.8%	4.2%	4.0%	3.8%
NOPAT to sales	11.1%	12.5%	16.8%	15.9%	18.0%	17.2%	17.0%
Sales to EOY NOWC	7.90	9.90	12.12	10.65	10.32	11.48	11.22
Sales to EOY NFA	0.22	0.27	0.26	0.25	0.24	0.24	0.23
Sales to EOY IC	0.21	0.26	0.25	0.24	0.23	0.23	0.22
Total ROIC using EOY IC	2.4%	3.3%	4.3%	3.8%	4.2%	4.0%	3.8%
<b>3-stage</b>							
Net income / sales		12.6%	15.8%	13.8%	14.2%	14.5%	15.1%
Sales / avg assets		0.25	0.25	0.24	0.23	0.23	0.22
ROA		3.2%	3.9%	3.3%	3.3%	3.3%	3.3%
Avg assets / avg equity		3.38	3.36	3.38	3.42	3.45	3.50
ROE		10.7%	13.1%	11.0%	11.1%	11.4%	11.7%
Payout Ratio		66.5%	54.5%	65.8%	64.7%	65.9%	66.2%
Retention Ratio		33.5%	45.5%	34.2%	35.3%	34.1%	33.8%
Sustainable Growth Rate		3.6%	6.0%	3.8%	3.9%	3.9%	3.9%

## Appendix 7: Cash Flow Statement

Cash Flow Statement							
Items	2015	2016	2017	2018	2019	2020E	2021E
<b>With cash and debt</b>							
NOPAT	\$660	\$937	\$1,285	\$1,225	\$1,413	\$1,397	\$1,397
<i>Growth</i>		42.0%	37.1%	-4.7%	15.4%	-1.1%	0.0%
NOWC	751	755	631	721	759	707	733
Net fixed assets	27,148	27,955	29,377	31,228	32,575	34,528	35,914
Total net operating capital	\$27,899	\$28,709	\$30,008	\$31,949	\$33,333	\$35,235	\$36,646
<i>Growth</i>		2.9%	4.5%	6.5%	4.3%	5.7%	4.0%
- Change in NOWC		4	(124)	90	38	(52)	26
- Change in NFA		806	1,423	1,851	1,347	1,953	1,385
FCFF		\$127	-\$14	-\$717	\$29	-\$504	-\$14
<i>Growth</i>			-110.7%	5165.6%	-104.0%	-1861.3%	-97.1%
- After-tax interest expense		224	299	371	453	438	451
+ Net new short-term and long-term debt		(201)	858	789	823	1,000	1,015
FCFE		-\$298	\$545	-\$299	\$399	\$58	\$549
<i>Growth</i>			-282.6%	-154.8%	-233.7%	-85.6%	853.6%
Sources of cash (FCFE)		-\$298	\$545	-\$299	\$399	\$58	\$549
Uses of cash							
Other expense		(\$227)	(\$219)	(\$207)	(\$153)	(\$220)	(\$300)
Dividends		625	657	697	720	778	824
Change in other equity		40	17	36	-	75	75
		\$438	\$454	\$526	\$567	\$633	\$599
Change in other liab		736	(90)	825	168	575	50
Total		(\$298)	\$545	(\$299)	\$399	\$58	\$549

## Appendix 8: 3-stage DCF Model

	Year						
	1	2	3	4	5	6	7
	First Stage		Second Stage				
Year ending January	2020	2021	2022	2023	2024	2025	2026
<i>Sales Growth</i>	3.6%	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>NOPAT / S</i>	17.2%	17.0%	17.2%	17.4%	17.6%	17.8%	18.0%
<i>S / NOWC</i>	11.48	11.22	11.08	10.93	10.79	10.64	10.50
<i>S / NFA (EOY)</i>	0.24	0.23	0.23	0.23	0.23	0.23	0.23
<i>S / IC (EOY)</i>	0.23	0.22	0.22	0.22	0.22	0.22	0.23
<i>ROIC (EOY)</i>	4.0%	3.8%	3.9%	3.9%	4.0%	4.0%	4.1%
<i>ROIC (BOY)</i>		4.0%	3.9%	4.0%	4.0%	4.1%	4.1%
<i>Share Growth</i>		-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
<i>Sales</i>	\$8,114	\$8,224	\$8,389	\$8,556	\$8,728	\$8,902	\$9,080
<i>NOPAT</i>	\$1,397	\$1,397	\$1,442	\$1,488	\$1,536	\$1,584	\$1,634
<i>Growth</i>		0.0%	3.2%	3.2%	3.2%	3.2%	3.2%
<i>- Change in NOWC</i>	-52	26	24	25	26	27	28
<i>NOWC EOY</i>	707	733	757	783	809	836	865
<i>Growth NOWC</i>		3.7%	3.3%	3.4%	3.4%	3.4%	3.4%
<i>- Chg NFA</i>	1953	1385	686	699	713	726	740
<i>NFA EOY</i>	34,528	35,914	36,600	37,299	38,012	38,739	39,479
<i>Growth NFA</i>		4.0%	1.9%	1.9%	1.9%	1.9%	1.9%
<i>Total inv in op cap</i>	1902	1411	711	725	739	754	769
<i>Total net op cap</i>	35235	36646	37357	38082	38821	39575	40344
<i>FCFF</i>	(\$504)	(\$14)	\$731	\$763	\$796	\$830	\$866
<i>% of sales</i>	-6.2%	-0.2%	8.7%	8.9%	9.1%	9.3%	9.5%
<i>Growth</i>		-97.1%	-5154.0%	4.4%	4.3%	4.3%	4.2%
<i>- Interest (1-tax rate)</i>	438	451	473	495	517	539	561
<i>Growth</i>		3.0%	4.9%	4.6%	4.4%	4.2%	4.1%
<i>+ Net new debt</i>	1000	1015	700	700	700	700	700
<i>Debt</i>	13471	14371	15071	15771	16471	17171	17871
<i>Debt / tot net op capital</i>	38.2%	39.2%	40.3%	41.4%	42.4%	43.4%	44.3%
<i>FCFE w debt</i>	\$58	\$549	\$958	\$968	\$979	\$991	\$1,004
<i>% of sales</i>	0.7%	6.7%	11.4%	11.3%	11.2%	11.1%	11.1%
<i>Growth</i>		853.6%	74.4%	1.1%	1.1%	1.2%	1.3%
<i>/ No Shares</i>	314.6	313.8	313.1	312.3	311.5	310.8	310.0
<i>FCFE</i>	\$0.18	\$1.75	\$3.06	\$3.10	\$3.14	\$3.19	\$3.24
<i>Growth</i>		855.9%	74.8%	1.3%	1.4%	1.5%	1.6%
<i>* Discount factor</i>	0.95	0.90	0.86	0.82	0.78	0.74	0.70
<i>Discounted FCFE</i>	\$0.17	\$1.58	\$2.63	\$2.54	\$2.45	\$2.36	\$2.28

Third Stage							
Year ending January	2020	2021	2022	2023	2024	2025	2026
<b>Terminal value P/S</b>							
Sales	\$8,114	\$8,224	\$8,389	\$8,556	\$8,728	\$8,902	\$9,080
<i>Growth</i>		1.4%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>Net profit margin</i>	14.5%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%
Terminal P/S							2.80
* Terminal SPS							\$29.29
Terminal value							\$82.02
* Discount factor							0.70
Discounted terminal value							\$57.75
<b>Terminal value P/B</b>							
Book value	\$10,508	\$10,855	\$11,216	\$11,594	\$11,988	\$12,402	\$12,835
<i>Growth</i>		3.3%	3.3%	3.4%	3.4%	3.4%	3.5%
<i>ROE (EOY book)</i>	11.2%	11.5%	11.3%	11.2%	11.0%	10.8%	10.7%
Net income	\$1,179	\$1,246	\$1,269	\$1,293	\$1,318	\$1,345	\$1,373
Dividends	\$778	\$824	\$832	\$841	\$849	\$858	\$866
<i>Growth</i>		6.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Shares	314.6	313.8	313.1	312.3	311.5	310.8	310.0
Price		\$96.42	\$96.34	\$96.25	\$96.17	\$96.08	\$96.00
<i>Growth</i>			-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Net issuance		-\$75	-\$75	-\$74	-\$74	-\$74	-\$74
Terminal P/B							2.30
* Terminal BPS							\$41.41
Terminal value							\$95.23
* Discount factor							0.70
Discounted terminal value							\$67.05
<b>Terminal value P/E</b>							
Net income	\$1,179	\$1,246	\$1,269	\$1,293	\$1,318	\$1,345	\$1,373
<i>% of sales</i>	14.5%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%
EPS	\$3.75	\$3.97	\$4.05	\$4.14	\$4.23	\$4.33	\$4.43
<i>Growth</i>		5.9%	2.1%	2.2%	2.2%	2.3%	2.3%
Terminal P/E							19.50
* Terminal EPS							\$4.43
Terminal value							\$86.39
* Discount factor							0.70
Discounted terminal value							\$60.82
<b>Summary (using P/S multiple for terminal value)</b>							
First stage	\$1.76	Present value of first 2 year cash flow					
Second stage	\$12.26	Present value of year 3-7 cash flow					
Third stage	\$57.75	Present value of terminal value P/S					
Value (P/S)	<b>\$71.76</b>						
<b>Summary (using P/B multiple for terminal value)</b>							
First stage	\$1.76	Present value of first 2 year cash flow					
Second stage	\$12.26	Present value of year 3-7 cash flow					
Third stage	\$67.05	Present value of terminal value P/B					
Value (P/B)	<b>\$81.07</b>						
<b>Summary (using P/E multiple for terminal value)</b>							
First stage	\$1.76	Present value of first 2 year cash flow					
Second stage	\$12.26	Present value of year 3-7 cash flow					
Third stage	\$60.82	Present value of terminal value P/E					
Value (P/E)	<b>\$74.84</b>						