



Applied Investment Management (AIM) Program

AIM Class of 2018 Equity Fund Reports Fall 2017

Date: Friday, September 8th | **Time:** 3:00 – 4:00 p.m. | **Location:** AIM Research Room 488

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These student presentations are an important element of the applied learning experience in the AIM program. The students conduct fundamental equity research and present their recommendations in written and oral format – with the goal of adding their stock to the AIM Equity Fund. Your comments and advice add considerably to their educational experience and is greatly appreciated. Each student will spend about 5-7 minutes presenting their formal recommendation, which is then followed by about 8-10 minutes of Q & A.

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Rio Tinto Plc ADR (RIO)

September 8, 2017

Andrew Crossman

International Materials

Rio Tinto Plc (NYSE: RIO) is the world's second largest mining company specializing in the extraction, transport, refinement, and sale of raw mining metals. RIO operates under four different product segments iron ore (41% of CY16 revenue), aluminum (27%), energy and materials (19%), and copper and diamonds (13%). RIO operates around the globe and its geographic revenue is equally as diverse with revenue deriving from China, US, and Japan (41%, 14%, and 11% of FY16 revenue respectively). The company was founded in 1873 and is headquartered in London, England.

Price (\$):	\$48.84	Beta:	1.30	FY: Dec	2016A	2017E	2018E	2019E
Price Target (\$):	\$61.36	M-Term Rev. Gr Rate Est:	9.5%	Revenue (Mil)	33,547.78	40,319.54	39,745.32	43,670.36
52WK H-L (\$):	49.35 - 29.62	M-Term EPS Gr Rate Est:	32.6%	% Growth	-3.5%	20.2%	-1.4%	9.9%
Market Cap (mil):	\$85.6 B	Debt/Equity:	44.9%	Oper Inc	5,529.56	13,719.54	14,107.93	16,507.56
Insider Holdings	15.3%	Debt/EBITDA (ttm):	1.68	% Growth	18.3%	148.1%	2.8%	17.0%
Avg. Daily Vol (mil):	3,321,972	WACC	9.45%	Op Margin	16.5%	34.0%	35.5%	37.8%
Yield (%):	4.7%	ROA (%):	5.05%	EPS*	\$2.95	\$5.35	\$5.62	\$6.28
ESG Rating	BBB	ROE (%):	11.90%	P/E (Cal)	15.1	9.1	8.7	7.8
		ROIC (%):	4.88%	EV/EBITDA	6.5	5.4	6.1	6.0

Recommendation

Rio Tinto is focused on optimizing process efficiency and lowering costs, to capitalize on their large market cap (\$87.5 B market cap, second largest in the world). Operating mines in Australia (48% of CY16 assets), Canada (22%), United States (8%), and Africa (5%), Rio is truly a worldwide seller in the mining industry. The firm uses their geographic advantage to penetrate the growing need to replace steel in Chinese and Japanese markets using iron ore mined in Australia. Management aims to update and innovate technology use in operations to generate an additional \$5 billion in free cash flow (\$1.5 billion per year) by 2020. Commodity prices, specifically mining materials, have appreciated in price YTD (iron ore 67%, copper 45%). Despite these recent price increases, over the past 5 years all of Rio's main products segments have seen significant price depreciation. To compete in the highly price sensitive commodities market, Rio's management has trimmed their portfolio of mines, only keeping those that provide substantial value and margins to the firm. In addition, three growth projects are to be completed by 2020, creating organic capacity growth in their iron ore, copper, and bauxite (aluminum) segments. Additional capacity, combined with reduced cash costs (15% since CY 2016) and higher quality product in their largest segment iron ore, will allow the firm to continually capitalize on growth in the Chinese economy. By reducing long term debt (-30% YOY) and implementing technology requiring lower sustaining capex (20% change YOY), Rio Tinto has been able to focus their capital on developing productive new mines, expanding the life of older sites, and continuous implementation of new technology. In addition to releasing committed capital, lowering net debt has given Rio Tinto a significant advantage at weathering any future downturn in commodity prices. A continued trend in the mining industry is that new low-cost producers are taking market share away from more established mines (300 million tonnes of materials in 2017). Rio's costs will continue to be competitive with lower interest rates and oil cost deflation in almost every global market. Rio Tinto denominates all costs and revenues in USD; additionally, they use currency swaps to denominate debt in USD. Due to Rio Tinto's commitment to new innovative mining techniques, cost cutting measures, and focus on increasing shareholder value, it is recommended that RIO be added to the AIM International Equity Fund with a price target of \$61.36, which represents a 25.63% upside. RIO pays a semiannual dividend of \$1.10, representing a yield of 4.71%.

Investment Thesis

- The Mine of the Future.** Management has stated that Rio Tinto will generate \$5 billion over the next 4 years through their "mine-to-market" productivity system; improving Rio's industry topping margins. This efficiency program is specifically focused on maximizing free cash flow

through technology and innovative new practices, including autonomous trucks (15% improvement on production costs), new autonomous rail system "Autohaul", and new conveyor belt systems/process improvements (30% volume improvement). Final implementation of Autohaul at the end of 2018 will allow Rio to capitalize on growth projects, lower capital expenditures, and focus more resources on investigating new assets.

- **Growth Projects** Rio Tinto has three major growth projects underway, all scheduled for completion by 2020. An expansion at the Oyu Tolgoi site in Mongolia is the largest by anticipated production increases (45% of total copper production) and capex (\$5 billion over 3 years). Amrun, a bauxite mine (ore in which aluminum is typically found), with planned completion of H1 2019, the new development will add 48% of additional capacity. Silvergrass is an expansion of the Pilabra, Australia mining system, which will add a smaller amount of capacity (2% of annual cap), but is a new mix of iron ore, aimed at complementing existing products. Silvergrass will be completed by 4Q2017. Despite these expansion projects, Rio Tinto reduced capital expenditures to \$3 billion for FY16 (50% decrease from 2015), with gradual capex growth projected to fund additional growth projects.
- **Trimming Asset Portfolio to Maximize Shareholder Value** Rio's management has actively committed to divesting from projects which are underperforming. These sales totaled \$1.1B in FY16 and another \$2.6B in revenue from their Australian coal mine earlier this year. Management has stated that they will focus on growth in areas other than coal. Management has not yet stated what they plan on doing with the proceeds of the sale, but they have talked about increasing dividend yields and share buybacks as a possibility; Rio has already bought back \$1.5B in shares outstanding this year, and held their dividend yield stable at 4.71%.

Valuation

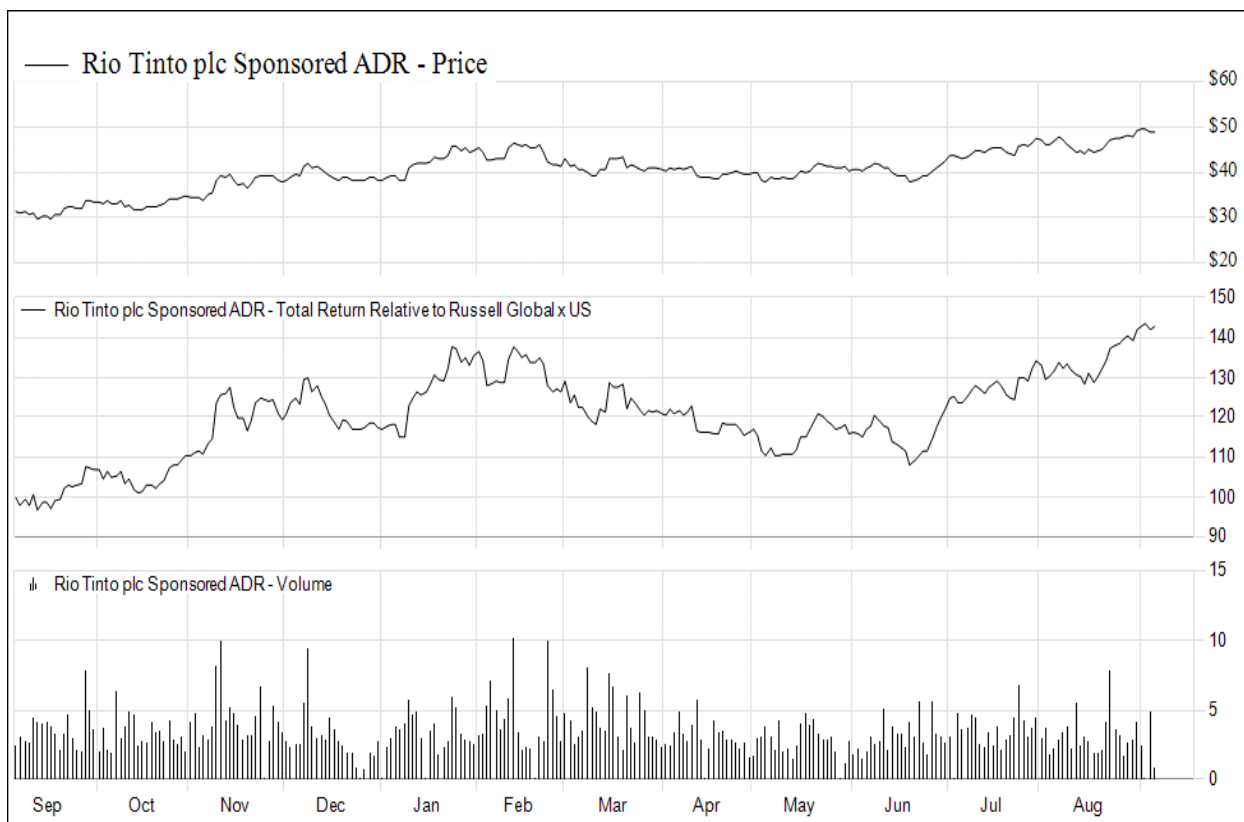
To reach an intrinsic value for RIO, 5-year DCF model was constructed. Using a terminal growth rate of 2.25%, a WACC of 9.45%, an intrinsic value of \$62.17 was reached. A $\pm .25\%$ sensitivity analysis on the terminal growth rate and WACC ranged from \$58.12–\$66.81. Additionally, an EV/EBITDA relative multiple valuation was conducted using EBITDA FY17 of \$19,108MM and a comparables average EV/EBITDA of 5.59x which resulted in a valuation of \$59.47. The DCF model and EV/EBITDA were weighted 70/30 and a price target of \$61.36 was reached, representing an upside of 24.33%.

Risks

- **Commodity Pricing** The firm derives all its revenue from the sales of mined materials and any price shifts in commodities would negatively affect growth prospects. A fall from peak commodity prices is expected in 2018, and has been modeled in to growth projects (-10% revenues in 2018 for iron ore segment).
- **Chinese Demand Risk** Rio Tinto's largest product segment is iron ore (43% of FY16 revenues), which is heavily dependent on growth in Chinese infrastructure. Any slowing in growth, or demand for a material other than steel for building purposes would hurt Rio's future revenues. Additionally, any tariffs placed on steel between the US or Europe and China would lower demand and negatively impact growth of Rio's iron ore segment.
- **Inflation Increasing Costs** With a focus on margin improvement, periods of higher inflation would increase the input costs of the mining process. A low interest rate environment in the US, China, Japan, and other European countries has allowed Rio to steadily reduce operational costs. Rio has already endured additional costs and delays with implementation of Autohaul (back on track now), but any additional adverse financing or increased costs would reduce planned efficiency of these programs.

Management

Jean-Sébastien Jacques has been the CEO of Rio Tinto since 2016. Previously he was Chief executive of the Copper and Coal division. Christopher Lynch has been CFO since 2013. Rio Tinto's ESG score is BBB, putting it in the top 50% of the mining industry.



Source: FactSet

<u>Name</u>	<u>Ticker</u>	<u>Revenues</u>	<u>ROE</u>	<u>ROA</u>	<u>Debt/Equity</u> <u>y</u>	<u>Est 5 yr NI</u> <u>growth</u>
Rio Tinto ADR	RIO	38,115	15.7%	6.9%	35.7%	37.6%
BHP Billiton	BHP-AU	23,564	21.2%	7.7%	52.7%	31.1%
Vale Pfd-A N1	Vale5-BR	33,996	4.3%	2.0%	54.1%	8.2%
Anglo American	AAL-LN	30,682	12.4%	5.0%	66.6%	14.7%
Norsk Hydro	NHY-NO	10,577	6.8%	4.2%	3.9%	-11.3%
Peer Averages		24,705	11.2%	4.7%	44.3%	10.7%

Source: Factset

<u>Name</u>	<u>Ticker</u>	<u>Market Cap (mil)</u>	<u>P/S</u>	<u>P/E</u>	<u>EV/EBITDA</u>	<u>P/B</u>
Rio Tinto ADR	RIO	87,586	2.3	13.7	6.6	2.0
Anglo American	AAL-LN	24,756	1.0	6.0	5.1	1.2
BHP Billiton	BHP-AU	108,104	3.3	45.6	8.8	2.0
Vale Pfd-A N1	Vale5-BR	57,280	1.7	14.1	5.7	1.3
Norsk Hydro	NHY-NO	14,607	1.4	22.5	9.4	1.5
		51,187	2	22.0	7.3	1.5

Source: Factset

Silicon Motion Technology Corp (SIMO)

September 8, 2017

Jack Gorski

International Technology

Silicon Motion Technology Corp. (NASDAQ:SIMO), is a semiconductor company who designs and produces low-power semiconductor products for OEMs and other mobile device manufacturers. SIMO specializes in the production of negative-AND (NAND) flash controller integrated circuits (ICs) for solid-state drives (SSD) and radio frequency ICs, which are used in mobile devices such as phones and tablets. The company operates through its three business segments: Mobile Storage Products, Mobile Communication, and a miscellaneous Other segment, with percent of revenues of 92%, 7% and 1 % respectively. The bulk of their Mobile Storage Product revenue is driven by the sales of their client SSD controller that are used in many Samsung, Toshiba, Intel, Micron, SK Hynix and Western Digital products. SIMO sells most of its product to large international electronic manufacturers, resulting in 33% of revenue coming from Korea, 27% from China, 14% from Taiwan, 11% from the United States, and the remaining 15% from other countries. Silicon Motion Technology Corp is headquartered in Taiwan.

Price (\$):	46.87	Beta:	1.19	FY: Dec	2015	2016	2017E	2018E
Price Target (\$):	65.24	M-Term Rev. Gr Rate Est:	-0.7%	Revenue (Mil)	361.10	556.88	536.30	630.60
52WK H-L (\$):	56.25 - 37.37	M-Term EPS Gr Rate Est:	7.8%	% Growth	25.7%	54.2%	-3.6%	17.6%
Market Cap (mil):	1,665	Debt/Equity:	5.65	Oper Inc	76.40	137.44	120.70	157.10
Insider Holdings	0.00%	Debt/EBITDA (ttm):	0.17	% Growth	23.4%	48.8%	-12.2%	30.2%
Avg Daily Vol (mil):	0.6	WACC	10.55	Op Margin	21.3%	24.7%	22.5%	24.9%
Yield (%):	1.7	ROA (%):	12.11	EPS*	\$1.72	\$3.12	\$2.58	\$3.32
ESG Rating	NA	ROE (%):	17.72	P/E (Cal)	18.04x	13.43x	18.16x	14.11x
		ROIC (%):	28.19	EV/EBITDA	10.64x	8.37x	12.38x	9.64x

Recommendation

Technological advances have led to a revolutionary change in which the demand for data and the rate at which it is being produced is growing exponentially. This change has resulted in the rapid adoption of a more efficient means of storing data, mainly through the solid-drive. Silicon Motion Technology has positioned itself to be a key player from HDDs to SSDs by producing the fastest and most reliable hardware, backed by value added technologies including end-to-end data protection, power-lose data security features and Opal-compliant AES advanced full-disk encryption. Most controller manufacturers fail to provide this next level firmware to their controllers, giving SIMO an edge against its competitors. A few years ago, Silicon Motion only possessed roughly 25% of the total SSD controllers market share, that has now increase to about 30% to 35%, and management is projected to achieve 40% to 45% market share in the next three to five years. Improvements in market share will see greater affects as the TAM continues to grow as well. The costs per SSD are seeing substantial declines of ~25% YoY, allowing for greater production, higher volume and thus lower prices for OEMs and other end users. Lower prices will increase the demand for these drives for which volume is expected to grow by a CAGR of 42% over the next 5 years. With the switch in demand to SSDs, Silicon Motion Technology can expect to see large revenue growth as they are already the leading provider of 3D Negative-AND (NAND) for Samsung, SK Hynix, Micron, Intel and Western Digital. These large tech firms have already begun to adopt and implement the new flash storage while \$ASP/GB still trends around 30 cents per gig. This cost is expected to drop over the next few years and is estimated to be about 9 cents per gig by 2021. SIMO expects that the lower prices will lead to 350 to 400 million devices switching to SSD, which will use their flash controllers. There is also a possibility that Silicon Motion could obtain a significant portion, if not all of Intel's new consumer PCIe SSD business. These PCIe are expected to have a higher \$ASP than the previous SATA solutions. Silicon Motion Technology has also partnered with China's largest e-commerce company, Alibaba, for whom they provide enterprise SSD solutions through their Shannon Systems segment. This will help offset the effects of the tightness of NAND and help ease the SIMO into

2018, where margins are expected to rebound and then continue to grow. Management expects to have 30% operating margins within three to five years.

Investment Thesis

- **Switch from HDD to SSD.** Solid-state drives are becoming more obsolete as SSDs continue to display many more benefits. Demand for faster processing on mobile devices and computers means that manufacturers need to provide a way to access and process our data at much faster speeds. Access speeds are about a hundred times faster on SSD than HDD, as well as a three times faster read/write speed. The efficiency of these drives along with the low energy cost per bit benefit is what is driving the growth of SSDs. As production ramps up, prices will fall leading to even faster adoption of SSDs. Expectation have SSDs growing by a CAGR of 42% YoY until 2021.
- **More Mobile Devices Needed.** The interconnectedness of mobile devices has led to a phenomenon in which people are owning several different devices. SSDs have become widely popular in these devices because of their reliability and lower power consumption. Silicon Motion is top eMMC controller clients SK Hynix and Samsung will use SIMO controllers in their products including Android and Galaxy phones, with expected volumes increasing by ~5% YoY. Additionally, Silicon Motion's second fastest growing business segment, Client SSD, is expected to grow by ~25% YoY due to PC OEMs using the controllers in laptop computers and notebooks.
- **Convert to the Cloud.** There is a rapid conversion to cloud computing, but more importantly cloud data storage. SIMO took notice of this early on and is expected to benefit heavily from this through their enterprise SSD segment. This segment targets hyperscale data centers and enterprise customers, most of which are cloud operators. The TAM for cloud operators using flash based storage is supposed to quadruple by 2020 as data generation continues to increase.

Valuation

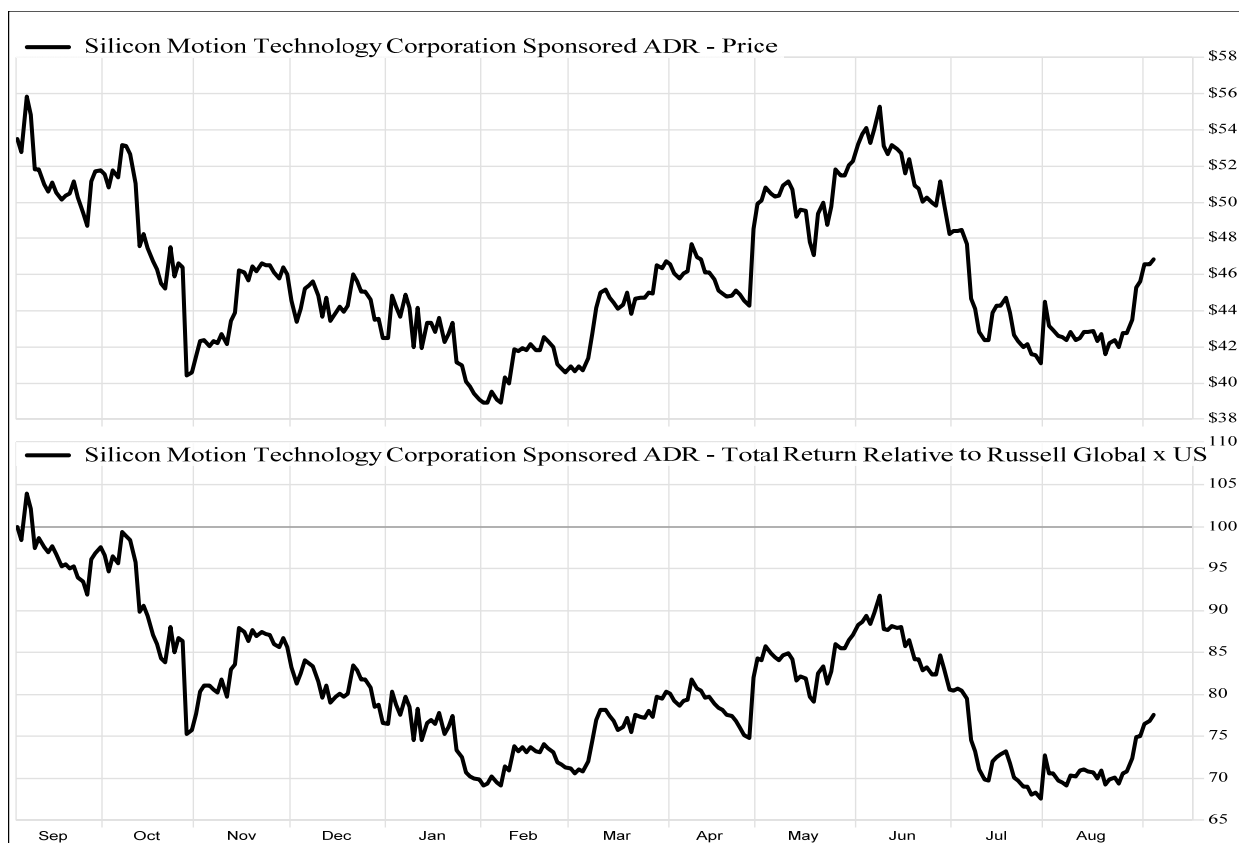
To reach an intrinsic value for SIMO, a Price/Earnings and EV/EBITDA multiple valuation were constructed along with a 5-year DCF model. A peer weighted average P/E multiple of 21.07x was used, resulting in a valuation of \$70.04. A peer weighted average EV/EBITDA multiple of 14.36x was used, resulting in a valuation of \$63.51. The discounted cash flow model used a WACC of 10.55% and a perpetuity growth rate of 2.5%, producing a valuation of \$62.18. Weighing each of these valuation techniques equally a final intrinsic value of \$65.24 was reached, representing a 40.1% upside.

Risks

- **Volume Dependency.** SIMO's sales are highly dependent on the availability of NAND flash memory provided by its customers. Low supply of flash memory results in higher prices that drive off consumers creating a lower demand for Silicon Motion's controllers. SIMO's partners need to increase volume of their SSDs to pull down prices in the market, giving OEMs the incentive to purchase more drives. The current difference between \$ASP for SSD and HDD flash is 26 cents, but that is expected to decline to 7 cents by 2021 as production ramps up. Silicon Motion's ability to grow revenues will depend on this production increase.
- **Predicting a Changing Future.** Silicon Motion Technology is involved in an industry where demand for different types of electronic goods is always changing and evolving. The volatility of this market results in unpredictable volume and timing for customer orders. Demand is driven by SIMO's consumers, mainly large electronic manufacturers who need high end products at cheap prices. Failure to meet these needs and keep up with changes in demand will result in lower sales.

Management

SIMO was formed in 2002 by two firms, Silicon Motion Inc. and Feiya Technology Corporation. Wallace Kou, the current President and CEO, founded Silicon Motion Inc. in 1995. Prior this role, Mr. Kou served as the VP and Chief Architect at Western Digital Corporation. Riyadh Lai is the CFO and joined Silicon Motion Technology in 2007.



Source: FactSet

Peer Fundamentals

<u>Name</u>	<u>Ticker</u>	<u>Revenues</u>	<u>ROE</u>	<u>ROA</u>	<u>Debt/Equity</u>	<u>Est 5 yr NI growth</u>
Silicon Motion Technology	SIMO	557	17.72	12.11	5.65	17.7%
Tower Semiconductor Ltd	TSEM-IL	1,250	40.62	17.01	59.42	-
Tianshui Huatian Technology Co.	002185-CN	821	8.18	5.28	10.98	23.8%
Mellanox Technologies Ltd.	MLNX	858	2.01	1.45	24.84	9.9%
Novatek Microelectronics	3034-TW	1,416	17.72	12.11	11.41	3.5%
Himax Technologies Inc.	HIMX	804	11.24	6.36	29.50	-34.5%
Peer Averages		1,030	15.95	8.44	27.23	0.6%

Source: FactSet

Peer Valuation

<u>Name</u>	<u>Ticker</u>	<u>Market Cap (mil)</u>	<u>P/S</u>	<u>P/E</u>	<u>EV/EBIT DA</u>	<u>P/B</u>
Silicon Motion Technology	SIMO	1,675	2.71x	13.43x	8.19x	3.38x
Tower Semiconductor Ltd	TSEM-IL	2,910	1.56x	8.24x	4.81x	2.74x
Tianshui Huatian Technology Co.	002185-CN	2,440	2.36x	32.93x	14.90x	2.62x
Mellanox Technologies Ltd.	MLNX	2,321	2.36x	21.62x	14.13x	2.06x
Novatek Microelectronics	3034-TW	2,318	1.42x	12.96x	7.95x	2.32x
Himax Technologies Inc.	HIMX	1,961	1.92x	20.11x	11.6x	2.22x
		2,390	1.92x	19.17x	10.68x	2.39x

Source: FactSet

Mueller Water Products, Inc., (MWA)

September 8, 2017

Jordan Luczaj

Domestic Industrials

Mueller Water Products, Inc. (NYSE: MWA) markets and manufactures water infrastructure, flow control, and piping component system products used in water distribution networks and water treatment facilities. They earn revenues through two segments: Mueller Co. and Mueller Technologies, making up 90% and 10% of revenues, respectively. Mueller Co. produces assorted valves for repairs, as well as both dry-barrel and wet-barrel fire hydrants. Mueller Technologies includes leak detection, metering, and pipe condition assessment. MWA operates in the United States, Canada, and recently expanded into the Middle East and China. For years Mueller Products has been a tried and true brand for much of the 21st century, represented by their 40-50% market share of US fire hydrants. However, now they are embracing change in US markets and expanding their product horizon by blending infrastructure with smart technology. MWA was founded on September 22, 2005 and are headquartered in Atlanta, Georgia.

Price (\$):	12.18	Beta:	1.29	FY: October	09/30/2015	09/30/2016	09/30/2017	09/30/2018
Price Target (\$):	14.86	M-Term Rev. Gr Rate Est:	-28.5%	Revenue (Mil)	1,164.50	1,138.90	839.10	897.84
52WK H-L (\$):	14.2 - 10.45	M-Term EPS Gr Rate Est:	12.5%	% Growth	-1.7%	-2.2%	-26.3%	7.0%
Market Cap (mil):	1,932	Debt/Equity:	104.34	Oper Inc	130.90	145.50	103.60	119.86
Insider Holdings	2.90%	Debt/EBITDA (ttm):	2.91	% Growth	2.9%	11.2%	-28.8%	15.7%
Avg. Daily Vol (mil):	0.7	WACC	8.51%	Op Margin	11.2%	12.8%	12.3%	13.4%
Yield:	1.3%	ROA:	4.92%	EPS*	\$0.31	\$0.65	\$0.31	\$0.37
ESG Rating	BB	ROE:	14.21%	P/E (Cal)	40.32x	32.18x	39.80x	33.34x
		ROIC:	6.71%	EV/EBITDA	8.61x	11.82x	13.95x	11.63x

Recommendation

MWA shows evidence of efficient operations in continually increasing gross margins YoY, from 17.48% to 31.99%. Management has also paid down over \$1 billion dollars in debt, while maintaining consistent FCF generation of over \$50 million per year. MWA's balance sheet is quite clean and their cash levels are at all-time highs after the divestiture of a non-core business, Anvil. This led to a significant decrease in sales for 2017FY, but in the long run makes Mueller a pure play and higher margin water infrastructure business. If Mueller Co. is the oyster, then Mueller Technologies is the pearl within. MWA embraces progressivity in water infrastructure and is pioneering smart water technology: leak detection systems, remote disconnect meters, and condition assessment all linked to a user-friendly software program. These products have the potential to save municipalities substantially due to lower truck/service trips, non-invasive discovery, water efficiency improvements, prevent large water losses, and improving the quality of neighborhoods. Residential construction drives revenues and has been strong for most of 2017 as building permits are up 4.1% on the year. Additionally, resident incomes are still growing, 0.4% last month and people are not afraid to spend this extra cash apparent by the fastest increased pace in consumer spending in three months, 0.3%. Considering the strong economy, new products, appointment of a new CEO, and continued margin expansion it is recommended that Mueller Water Products, Inc. be added to the AIM Equity Fund with a target price of \$14.86, signifying a 21.14% upside.

Investment Thesis

- Maintaining Flow with Smart Water Technology.** Smart water technology is the basis of future water infrastructure. Everything is being streamlined in the modern era and water systems are expected to do the same. Smart water technology allows residents and municipalities to monitor their water consumption, sends alerts if leaks are detected, and provides status updates on pipe deterioration. There are currently 240,000 water main breaks a year and utilities lose almost 7 billion gallons of water each year due to unidentified and ongoing leaks. Mueller Technologies leak detection has been proven to identify 90% of leaks, meaning water and money could both be saved in the process.

- **Piping into Emerging Markets.** The recent acquisition of Singer Valve has established roots and put resources on the ground in developing markets. China and the Middle East stand out as ideal candidates for expansion. Singer Valve already has standing facilities in much of China where water infrastructure is ghastly unorganized. China's water treatment market saw a 13% increase to \$31 billion in 2016, and is highly fragmented amongst competitors. Considering China's rapid expansion, urbanization, and population growth, eventually the Chinese government will have no choice but to reevaluate their systems. China plans to spend nearly \$150 billion on water infrastructure by 2020 to mitigate risk of floods and droughts.
- **Money Down the Tubes – Barriers to Entry.** The barriers to entry involved in entering the water infrastructure market are unreasonably high. During their business cycles, the market competitors have managed to operate in an unregulated oligopoly that offers negligent changes in market share. Even if there were a significant portion of the market to be had, many interested businesses would not have the capital to build foundries, manufacturing plants, purchase equipment, or market their product through a sales team.

Valuation

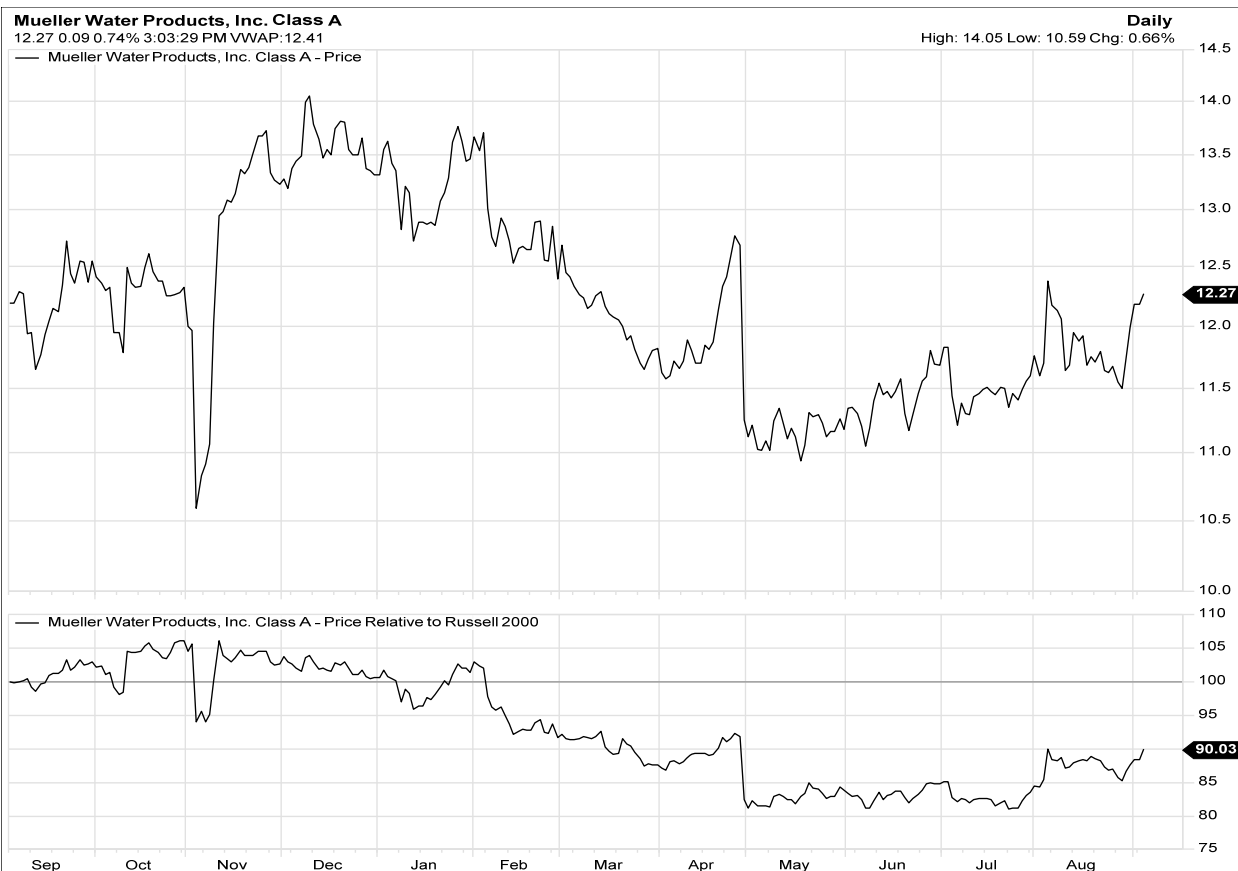
To reach an intrinsic value for MWA, a five year DCF model was constructed using both the EBITDA Multiple Method and the Perpetuity Growth Rate Method. By using an EBITDA Multiple of 13.55x, a Perpetuity Growth Rate of 2.25% and a WACC of 8.51% an intrinsic value in the range of \$14.99 - \$15.47 was reached. A sensitivity analysis applied to the EBITDA Multiple and WACC ranged from \$13.27-17.69, and the sensitivity analysis applied to the Perpetuity Growth Rate and WACC ranged from \$13.23-17.45. Additionally, an EV/EBITDA multiple valuation and P/E valuation were conducted. EV/EBITDA was applied using 2018E EBITDA of \$173 million and peer comparable multiple of 13.55x, resulting in a valuation of \$14.85. Lastly, a P/E valuation was calculated using EPS 2018E of \$0.37, resulting in a target price of \$14.14. By weighting the two DCF models 25% each, EV/EBITDA 25%, and P/E 25%, a price target of \$14.86 was reached, yielding a 21.14% upside. The firm pays a dividend yield of 1.31%.

Risks

- **Material Costs.** Through the start of 2017, scrap steel and brass ingot have done nothing but climb, up 25% and 30% during 3Q 2017. This creates a headwind and has a direct effect on operating margins. Materials are typically 15% of Mueller Companies COGS, and when these prices inflate MWA cannot pass the costs on to the consumer via price increases until the next quarter. Mueller is not currently seeing pushback on price increases.
- **Contingent Success and Growth of Mueller Technologies.** Mueller Technologies offers a huge growth opportunity, and management seems to think that they could be holding a golden ticket. The idea and innovation is astounding, but there has been lackluster demand thus far derived from low municipal spending. Mueller Technologies relies 100% on municipal spending, and management has stated they need \$100 million in sales for Mueller Technologies to be profitable.
- **Residential Slow Down and Municipal Reliance.** Overall sales are driven largely by new residential construction and municipal spending for repairs and replacements, 30% and 60% of sales, respectively. Housing starts are important in residential business segment, starts have softened and declined over the last 5 out of 6 months. Building permits also fell 4.1% in the month of July, but future infrastructure spending seems evident considering the present administration's stance and the grueling effect of Hurricane Harvey.

Management

J. Scott Hall was appointed CEO of Mueller Water Products on January 23, 2017. Hall was formerly president and CEO of Textron Inc., where he was head of the Industrial Segment and oversaw almost \$4 billion in revenue. He is renowned for his product development skills, manufacturing knowledge, and ability to implement Six Sigma and lean manufacturing principles.



Company Name	Ticker	Market Cap (mil)	P/S	P/E	EV/EBITDA	P/B
Mueller Water Products, Inc.	MWA	1,945.87	1.80x	32.18x	11.82x	4.85x
Badger Meter, Inc.	BMI	1,327.55	2.73x	33.29x	15.08x	4.20x
Itron, Inc.	ITRI	2,780.67	1.21x	76.65x	12.26x	3.81x
Watts Water Technologies, Inc.	WTS	2,116.26	1.61x	26.72x	13.18x	3.03x
Rexnord Corp.	RXN	2,446.41	1.26x	36.06x	10.84x	2.23x
Franklin Electric Co., Inc.	FELE	1,778.28	1.91x	23.58x	13.32x	2.94x
Xylem, Inc.	XYL	11,115.26	2.37x	34.29x	16.66x	4.06x
Peer Averages		3,594.07	1.85x	38.43	13.55	3.38x

Source: FactSet

Company Name	Ticker	Revenues	Net Income	ROE	ROA	Debt/Equity	Est. 5yr NI Growth
Mueller Water Products, Inc.	MWA	1,138.90	63.90	16.29%	5.09%	115.97	19.62%
Badger Meter, Inc.	BMI	393.76	32.30	13.22%	9.16%	14.81	7.36%
Itron, Inc.	ITRI	2,013.19	31.77	5.14%	1.95%	48.23	14.92%
Watts Water Technologies, Inc.	WTS	1,398.40	84.20	11.68%	4.82%	88.88	8.01%
Rexnord Corp.	RXN	1,918.20	74.10	8.93%	2.15%	151.57	-
Franklin Electric Co., Inc.	FELE	949.86	77.05	13.16%	7.57%	31.01	3.81%
Xylem, Inc.	XYL	3,769.00	260.00	12.17%	4.67%	108.13	2.15%
Averages		1,740.40	93.24	10.72%	5.05%	73.77	7.25%

Source: FactSet

CareTrust REIT, Inc. (CTRE)

September 8, 2017

James Hannack

Domestic Financial Services

CareTrust (NASDAQ: CTRE) is a self-administered, self-managed Real Estate Investment Trust (REIT) focused on the healthcare industry. CTRE engages in the ownership, acquisition, development and leasing of skilled nursing facilities (“SNFs”), SNF campuses, assisted living facilities (“ALFs”) and independent living facilities (“ILFs”). CareTrust REIT was formed in 2013 as a wholly owned subsidiary of Ensign. The intent was to hold substantially all of Ensign's real estate business; however, on June 1, 2014 CareTrust REIT was spun-off from Ensign and is now a separate and independent publicly traded company. As of June 2017, CTRE owns 169 properties across 23 states, totaling over 16,000 beds/units – of which 98% is leased. CTRE has 50 employees and is headquartered in San Clemente, CA.

Price (\$):	19.31	Beta:	0.73	FY: Dec	12/31/2015	12/31/2016	12/31/2017	12/31/2018
Price Target (\$):	24.85	M-Term Rev. Gr Rate Est:	14.0%	Revenues	74.95	104.68	131.73	166.76
52WK H-L (\$):	19.9 - 12.7	M-Term EPS Gr Rate Est:	17.2%	% Growth	27.2%	39.7%	25.8%	26.6%
Market Cap (mil):	1,454	Financial Leverage	64.72	Operating Income	39.82	60.13	78.35	108.03
Insider Holdings	1.43	WACC	6.30%	% Growth	77.0%	51.0%	30.3%	37.9%
Avg. Daily Vol (mil):	0.6	ROA (%):	3.08	EPS (Cal)	\$0.26	\$0.52	\$0.78	\$0.91
Yield (%):	3.9	ROE (%):	5.82	% Growth	(-) year before	100.0%	49.1%	17.3%
ESG Rating	B	FFO/Total Debt	14.41%	FFO/Share	\$1.02	\$1.16	\$1.15	\$1.29
		Debt/Equity	64.72%	P/FFO	10.73x	13.24x	16.19x	14.50x

Recommendation

CTRE has been growing steadily since its spin-off in the middle of 2014. Rental income, which on average makes up 88% of total revenues, has grown at a 3-year CAGR of 22%. This pace is expected to continue for the rest of 2017 as projections have growth increasing by 108 basis points (bps) above the 3-year CAGR. This growth in revenue is even more significant, seeing as major expenses such as interest expense, and depreciation and amortization have been kept in check, growing at only a 3-year CAGR of 2.48% and 11.6% respectively. CTRE’s Q2 results were highlighted by operating income increasing to \$11.23 million, which is up 48% from the same quarter last year. Also, normalized funds from operations (FFO) grew by 33% over the prior year quarter to \$20.6 million. During the quarter, CTRE was also able to refinance a \$260 million, 5.875% note payable due in 2021, with a \$300 million 5.25% notes due 2025. This allowed CTRE to lock in a lower long-term interest rate, while also pushing the maturity date back four years. Due to the strong operating numbers, along with the drivers listed below, it is recommended that CTRE be added to the AIM fund with an upside of 29%. The firm also has a 3.9% annual dividend yield that is paid quarterly.

Investment Thesis

- **Still growing.** CareTrust first started with 94 facilities when they were spun-off from Ensign. Presently CTRE has 169 facilities, with all but three gained through the use of acquisitions. Looking forward, CTRE is planning on using this method to continue to grow and diversify its portfolio. The first half of 2017 was fairly quiet for CTRE with only eight investments totaling \$106.66 million, representing just 37% of 2016’s investment total. With that said, management has stated they currently have \$150-\$175 million worth of deals in their pipeline that are expected to close before the end of the year. Management also said they are working on a few other larger deals that could get closed in 2017 as well. However, these deals are not included in the estimate because of a slightly lower probability of a successful closing. With a debt/equity ratio of only 64.72% compared to an industry average of 86.2%, and full availability of their \$400 million revolver, CTRE has plenty of room and capital to fulfill these investment opportunities.
- **Small and nimble moves the needle.** Out of the 17 healthcare REITs based in the US, CTRE is currently the fourth smallest by market capitalization. It is also one of only five other healthcare REITs that have a market capitalization below \$3.3 billion. This allows CTRE to cherry-pick only

the most profitable, smaller deals, while the mid and large cap REITs chase the whale sized deals that are generally less profitable. It also helps CTRE to pick deals that do not require initial improvements. Over the course of their 72 acquisitions, CTRE has only spent \$500 million in repairs. Overall, this smaller size has led to a lack of competition, which has helped CTRE fill its portfolio full of higher-yielding SNFs, mid-market senior housing assets, and one-off deals.

- **Lease Terms and Maturities.** All leased facilities are structured as triple-net leases. This means their tenants are responsible for all facility maintenance, repair, insurance, and taxes. CTRE is also paid a fixed amount from each of their renters, with annual CPI based escalators for 95% of their facilities, and fixed annual escalators for the rest. This payment structure helps shield CTRE from declines in occupancy levels and margins. As for lease maturities, CTRE has only 2.7% worth of their annual rent expiring in 2019 with the rest not maturing until 2026 and beyond.

Valuation

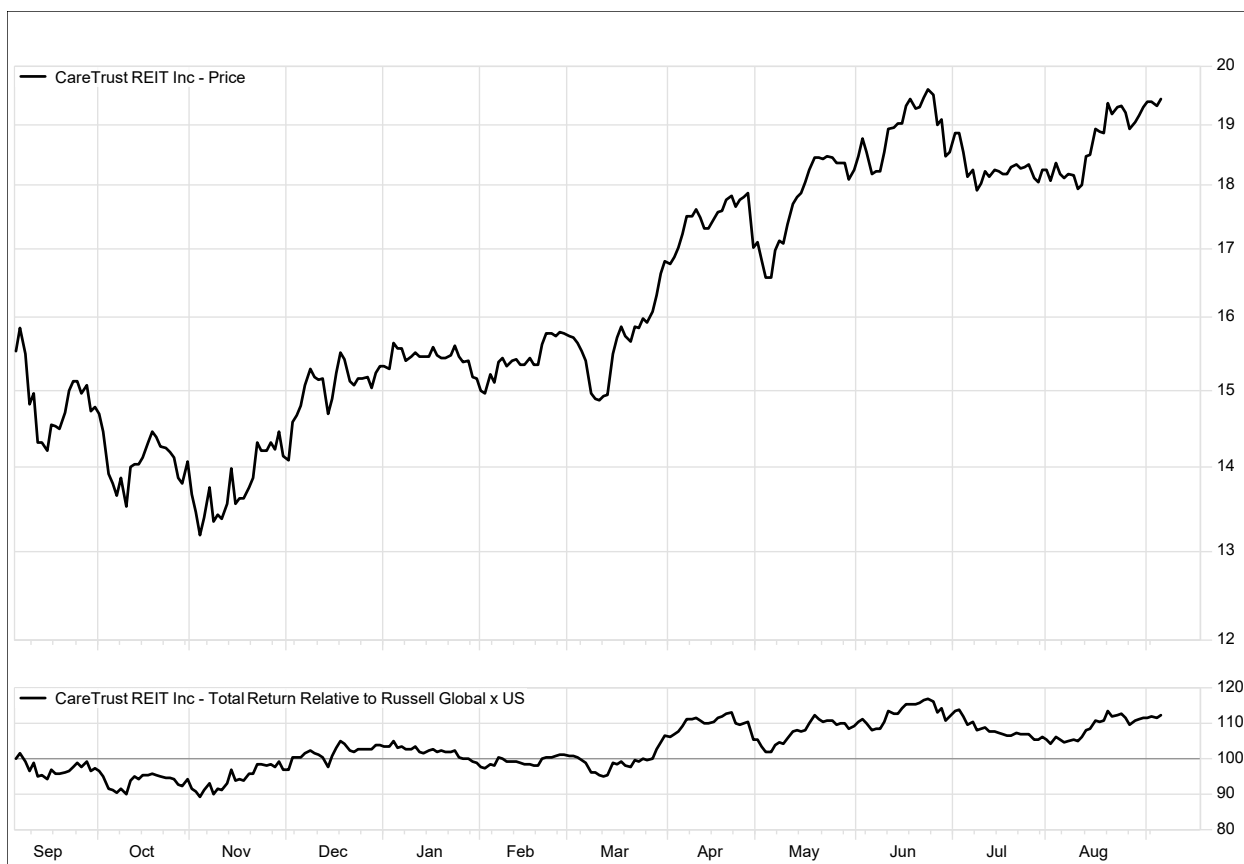
To find the intrinsic value of CTRE, a five-year dividend discount model (DDM) was used, as well as a price to funds from operations multiple model (P/FFO). For the 5-year DDM model, a terminal growth rate of 2.5% was used along with a WACC of 6.33% and a dividend growth rate of 4.96% (their three-year CAGR). This resulted in an intrinsic value of \$25.02. As for the P/FFO multiple model, CTRE's 3-year average historic P/FFO was 13.64, with its peer average at 15.83. which was computed by weighing the peer average (60%) and the historic average (40%), resulting in an average of 14.96%. When multiplied by the quotient of average estimated FFO and average shares outstanding (1.70), an intrinsic value of \$24.59 was obtained. Weighing DDM to P/FFO 60/40, the final estimated intrinsic value of CTRE is \$24.85, representing a 29% upside while also yielding a 3.9% dividend.

Risks

- **Dependent on Others.** CTRE leases out all but three of the properties they own. This means their success is dependent on how well their renters manage the properties. CTRE also faces renter concentration risk. As of Q2 2017, 81.7% of CTRE's rent comes from only five companies, with 49.4% of it coming from just Ensign. If one or more of those companies were to experience significant business downturns, they could be unable to make their rent payments to CTRE. This in turn could pose a material negative impact to CTRE's business.
- **Affordable Care Act (ACA).** Over the past 30 years, patient mix has slowly been shifting from private pay to government pay. In 2010, when President Obama signed the ACA into law, it greatly increased the rate of this shift. This shift has hurt managers of senior living because government reimbursement is usually lower than that of private pay, and is sometimes even lower than the cost of care. With ~90% of reimbursement coming from Medicare and Medicaid, margins for these companies have shrunk significantly. In turn this has hurt the profitability of the managing companies. Declining profitability for the management companies poses a threat to CTRE because if it declines too much, it could hurt CTRE's ability to collect its rent payments.
- **Current Declines in the Industry.** Over the past 15 years the number of SNF's have declined from 16,700 facilities in 2000 to 15,700 by the end of 2015. On top of that, occupancy rates have declined from 85.7% in 2014 to 82.6% at the end of Q1 in 2017. Part of the declines in facilities have been due to increased government regulation as to the level of care that is now required to be provided. The other part is due to too much supply for the current demand as the popularity of ALFs rise. Currently, it appears the SNF market is stable, but it is uncertain as to when large amounts of growth will pick back up. If the declines continue, it could hurt profitability for the management companies. This in turn could hurt CTRE's ability to collect rent.

Management

CTRE's core management team is comprised of Greg Stapley (CEO), Bill Wagner (CFO), Dave Sedgwick (VP Operations), and Mark Lamb (Director of Operations). All four have been with the company since it was spun off in 2014. All four members have also had previous management experience in healthcare real estate.



<u>Name</u>	<u>Ticker</u>	<u>Gross Margin</u>	<u>ROE</u>	<u>ROA</u>	<u>Debt/Equity</u>	<u>N.I. 1 Yr Growth</u>
CareTrust REIT	CTRE	60.72	5.82	3.08	64.72	52.18
LTC Properties	LTC	77.91	12.04	6.35	84.91	13.12
Sabra Healthcare REIT	SBRA	71.65	8.73	3.90	122.42	35.39
National Health Investors	NHI	35.11	1.80	1.11	67.33	62.92
Physicians Realty Trust	DOC	77.16	12.76	6.47	89.01	-5.21
Peer Averages		65.46	8.83	4.46	90.91	26.55

Source: Factset

<u>Name</u>	<u>Ticker</u>	<u>Market Cap (mil)</u>	<u>P/B</u>	<u>Price/FFO</u>	<u>FFO per Share</u>	<u>Div. Yld. %</u>
CareTrust REIT	CTRE	1,453.52	2.38	17.04	1.12	4.44
LTC Properties	LTC	1,907.78	2.52	16.03	3.01	4.66
Sabra Healthcare REIT	SBRA	3,487.91	1.43	9.40	2.32	6.84
National Health Investors	NHI	3,262.98	2.54	17.51	4.55	4.85
Physicians Realty Trust	DOC	3,272.62	1.40	21.62	0.85	4.75
Peer Averages		2,982.82	1.97	16.14	2.68	5.28

Source: Factset